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THE DOMESTIC MANAGEMENT OF THE SICK-ROOM,

NECESSARY, IN AID OF

MEDICAL TREATMENT,

FOR

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THE CURE OF DISEASES.

BY

ANTHONY TODD THOMSON, M.D. F.L.S.
~~&c. &c.~~

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TO

THE LADIES OF GREAT BRITAIN,

NOT LESS DISTINGUISHED FOR

THEIR SOCIAL AND DOMESTIC VIRTUES

THAN FOR

THEIR PERSONAL GRACES,

THIS LITTLE VOLUME,

WHICH IS INTENDED

TO RENDER EFFICIENT THEIR DUTIES

IN THE SICK-ROOM,

IS

MOST RESPECTFULLY INSCRIBED

BY

THE AUTHOR.

PREFACE.

Such a volume as the present has long been a desideratum in the opinion of every Medical Practitioner, whose practice is sufficiently extensive to enable him to observe the almost general ignorance which prevails respecting the domestic management of the sick-room, and to feel the influence of that ignorance on his treatment of disease. The most judicious plan of medical management may be devised, and the plainest directions for its fulfilment may be delivered to the attendants of the sick-room; but, without more information on the subject than is at present possessed by the females of a household, and especially by those whose duty it is to superintend the execution of the orders of the Physician, little benefit can be anticipated to the invalid.

In a period which is characterized by the general extension of knowledge, it is remarkable how little attention has been devoted, in the education of young women, to those duties which are requisite to the comforts of a family, whether in health or in sickness. Woman is fully qualified by nature with intellectual powers equal to his own, to fit her as a rational companion to man, and to become an able and a sound instructress to his children; and also with sufficient strength of mind to share with him all the ills and disappointments of a chequered life. But if, in her education, accomplishments form the chief object, and acquirements are cultivated which have no tendency to elevate her character, to the exclusion of the wholesome and solid cultivation of the mind —if her education qualify her rather for the light graces of the drawing-room than for the matronly offices of the wife and the mother—those invaluable properties cannot be looked for; and an act of the greatest injustice is committed to the best and the most interesting part of our species.

In sickness, especially, man requires the attentions, the gentle and consolatory offices, of woman.

To have his pillow smoothed by one whom he loves and cherishes,—to have his wants anticipated by one whose smile has graced, adorned, and thrown a brighter beam of sunshine on his happier hours; to hear the sympathizing words of endearment and consolation in his sufferings fall upon his ear like the accents of love; and to find by his side one who is alive to all his feelings, unwearied with watching, forgetful of self, and only anxious for his recovery, are the greatest blessings which can be bestowed by a benificent Providence upon mortals. But if, with all the desire which can actuate a good woman to perform these duties, she is ignorant of them, how heart-rending must be her feelings; and how deeply must she deplore her inability. The object of this little volume is to afford the instruction which is essential under such circumstances; to render the management of the sick-room as satisfactory, as it is a labour of love, to her who is unhappily doomed to watch over it. The author has endeavoured to convey that information which is essential to *aid* the medical treatment of disease, not to *cure* it. That his work may fully answer the intention for which

it is written, he humbly trusts; and he will feel satisfied, should it do so, that the hours he has bestowed upon it have not been vainly nor uselessly employed.

A. T. THOMSON.

30, *Welbeck Street,*
December 1840.

CORRIGENDA.

Page 43, line 4, *for* "them" *read* "it."
—— 146, — 6, 11 } *for* "effusion" *read* "affusion."
—— 158, — 8, 9 }
—— 146, — 16, 28 }
—— 182, — 7 } *for* "fourth" *read* "fifth."
—— 190, — 4 from bottom }
—— 215, heading, *for* "INSANITY" *read* "SCROFULA."
—— 270, line 2 from bottom, *for* "the within" *read* "within the."
—— 325, — 9, *for* "corded" *read* "carded."
—— 348, — 14, *for* "for" *read* "but."

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INTRODUCTION.

HEALTH AND DISEASE.—CAUSES OF THE LATTER IN REFERENCE TO AIR, FOOD, EXERCISE, CLOTHING, MENTAL AFFECTIONS, SLEEP.—RECOGNITION AND PREVENTION OF DISEASE.

BEFORE entering upon the details of the subject of this volume, namely, *the management of the sick-room*, it will be proper to point out to the reader what really constitutes disease, that it may be recognized on its first appearance, and successfully combated before it has gained sufficient strength to entrench itself securely within the fortress of the constitution; or whilst its phenomena are as yet merely the results of disordered functions, and not the consequences of structural changes. With such a knowledge of the aspect of disease, and possessing the means of judging of its earliest approach, we are not only warned to demand assistance to combat it when it is most vulnerable, but, by anticipation, we are placed

upon our guard against its approach, and enabled to shield those naturally predisposed, either hereditarily or otherwise, from its attacks.

Health is that condition of the body in which all the functions of life are performed harmoniously, with ease, and with a feeling of well-being. Each organ acts unconsciously; the whole bodily energies seem to play their part together; and the union is so complete, that we neither feel nor care to enquire how the machine works; we are only sensible that its movements are simultaneous. Every deviation from this state denotes, in strict language, if not the actual presence, at least the approach, of disease. Thus, when the food, instead of being digested without the consciousness of the process, causes uneasiness or pain; when the appetite is lost, and the sight of food, instead of exciting appetite, induces loathing, nausea, or vomiting, we may conclude that disease exists; unless we can trace these circumstances to transient causes, on the discontinuance of which they also disappear. When the ordinary exertions cannot be carried on without weariness, languor, or fainting; when the circulation is hurried; the skin is hot and dry, or sweating is excited on the slightest exercise; when the breathing is embarrassed; when the head aches, or there is a sensation of dizziness; the usual sensibility being either considerably diminished or augmented; the voli-

tion impaired; or the mental faculties disturbed, and under little or no control; then is disease present. It is not necessary, however, that all, or even many, of these symptoms should exist at the same time; any one of them, occurring and continuing, constitutes disease.

The causes of these changes from health are either physical or intellectual: the former depending on the influence of extraneous circumstances connected with the ordinary phenomena of nature; in the atmosphere, on the earth, and in the waters of the planet which we inhabit: the latter, on the influence of that portion of our being to which we owe all those affections that prompt us to action, and by which alone we become conscious of our existence, and which we believe to be immutable. But, besides these exciting causes, man is liable to diseases by hereditary transmission; and to changes consequent upon the natural decay and the perishable structure of his bodily frame.

Man, also, has produced for himself, by the habits which civilized life has established, many diseases which were scarcely known in the early periods of society. Thus the crowded population of towns; the assemblage of many individuals in a limited space, under cover from the open air, for amusement or business; occupations carried on in ill-ventilated or insalubrious places; migratory habits, and the necessities which lead man to

visit climates uncongenial to his constitution; his ambition of distinction and of power, which enforce sedentary and severe mental study; the indulgence of either the exciting or the depressing passions; and even idleness, and the excessive cultivation of the imagination; all contribute, more or less, to the production of diseases. Mental sloth, also, as much as excessive application, equally impairs the powers of the mind and those of the body; and man suffers both for the crime of ingratitude which he commits in neglecting to cultivate that gift of Providence which has placed him above all created beings; and for the error, however commendable the object, which impels him to task his intellectual powers beyond their natural strength. Numerous bodily diseases result, the vital energy in some organ diminishes, the nervous system gives way, the ordinary incidents of life become sources of irritation, and the mind, reacted upon by the condition of the body, shares in the morbid influences under which they suffer, and either Hypochondriasis or Insanity is the result.

In tracing the production of all diseases, medical men, with much propriety, look very closely into the afflicted individual's predisposition to receive or to take on disease; and, perhaps, if they were, professionally, consulted rather to obviate the tendency to diseases than to cure them

when they are present, the sum of human happiness, as far as that depends upon health, would be greatly augmented. In a popular treatise, therefore, upon the duties of the sick-room, I am disposed to think that a greater service cannot be done to its readers, than to point out to them the most probable means of preventing diseases.

Regarding man as he is, in many respects, an artificial being, let us briefly enquire what are the general agents, the operation of which, under certain circumstances, is productive of disease.

1. That one which first demands our notice, because it is that which is most essential to existence, and to the agency of which man and all animals are continually exposed, is the *air*. In a natural state, it might be questioned how far the variations in the movements and the electrical states of the atmosphere, in its temperature, its dryness and its moisture, would produce disease; but there can be no doubt of its influence on civilized man.

It is the diversity in these natural agents which regulate the influence of climate both upon man and the lower animals, not only in respect to health, but in the perfection of the species. Thence, in the most genial regions of the earth, where a medium temperature prevails, we find the human race in the highest state of perfection; as, for example, in the Caucasus. This diversity, in

conjunction with other external circumstances of a physical character, namely, surface, soil, exposure, produce, and other influences, are the chief causes which affect the health of the inhabitants of particular countries, as well as that of strangers resorting to them. In the present instance, however, our enquiry is limited to the general influence of atmospheric air in producing diseases.

With respect to the temperature of the air,—when it is high, the weak and the delicate suffer from the relaxation which it causes; consequently they ought to remain as much as possible at rest during the day, and to take exercise either in the morning or in the evening. Even the robust should be cautious in fatiguing themselves by severe exertion of any kind in the middle of the day in summer; a precaution, however, less important in England than on the Continent. "I have seen labourers," says Zimmerman, "returning from the plough, fall down and die*." Violent frenzy is not uncommonly the result of exposure to the noon-day sun in equatorial regions. On this account, the siesta in Spain, Portugal, and other intertropical countries, is not a mere luxurious indulgence; it is essential to health.

Winter is a more healthy season than summer,

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* Treatise on Experience in Physic, (trans.) vol. ii. p. 93.

provided we are well clothed, and that we can afford fires, and enjoy sufficient vigour to take exercise. In Captain Parry's voyage to the Arctic Circle, the officers walked daily upon the ice when the thermometer was 20° below zero.

The humidity of the air, like its high temperature, relaxes, dispirits, and favors disease. But too dry air is equally hurtful; a proper medium is requisite for the maintenance of health. Cold moist air is more injurious than cold dry air; thence night air is generally hurtful to all invalids. Warm moist air, within a certain limit, is favorable to those liable to Pulmonary Consumption; but, when the heat of the air is great, and accompanied with much moisture, Dysentery, Cholera, and Fever are generated, and the air may be said to be, in every respect, unhealthy. But it is the variations in the state of the air that are most hurtful in this climate.

When the surface of the body is artificially heated, and suddenly exposed to cold air, both the skin and the respiratory organs become affected, and inflammatory action is induced. On the other hand, variations less obvious, and which can scarcely be detected by the closest investigation, exert influences upon either the nervous or the vascular system, and set up epidemic diseases; such, for example, as Cholera, Dysentery, Scarlet fever, and continued fevers of every type, from common

catarrhal Influenza to Typhus, and even Plague. It is true that some fevers are the result of local causes, operating only through the medium of the air; as, for example, Ague and Yellow-fever, and some well-marked *endemic* diseases*: but the prophylactic means to be adopted for shielding the body from their influence is nearly the same.

In this island, where atmospheric changes of every description are so frequent, and where a predisposition to Consumption of the lungs so generally prevails†, the strictest attention should be paid to the condition of the surface of the body. Means should be taken to preserve it, under every change in the weather and of season, in as equable a state, both of temperature and of perspiration, as possible; and nothing is better fitted for this purpose than wearing flannel next the skin in winter, and, at the same time, giving tone by the use of the shower bath, or by sponging, daily, the trunk of the body with water, or vinegar and water, or salt and water, either cold or tepid, according to the season of the year. Many a fatal issue, in those hereditarily predisposed to Consumption, has followed a cough, caused by remain-

* *Endemic diseases* are those depending upon permanent physical causes peculiar to certain localities; as, for example, *Ague*, generated by exhalations in marshy or fenny districts.

† About one fifth of all the deaths in Great Britain are due to Consumption.

ing near an open window in a heated ball-room; or by standing to converse with a friend at the corner of a street, during the prevalence of east or north-east winds, whilst the person is heated by walking: and many an Asthma, also, has been the result of an autumnal evening's expedition in an open boat.

It is not easy to guard against atmospheric electrical variations, and other vicissitudes, which influence the nervous rather than the vascular system, and which cause depression of spirits, and even a feeling of despondency, in the absence of misfortune, anxiety, or any occurrence likely to produce such a state of feeling. The best method, however, to repel such injurious influences, is to invigorate the body by exercise, proper clothing, and diet; and to withdraw the attention from the personal feelings by occupations which can fully engage the energies of the mind.

2. The causes of many diseases, again, are found both in the *nature* and the *quantity* of our food. Under the first may be placed its over-stimulating properties; under the second, its excess or deficiency. It should be fully understood, especially by mothers, that strength is not the result of much and stimulating diet: on the contrary, both are rapidly followed by exhaustion. In maintaining health, not a little depends on diversifying the food; on the regulation of the *periods* at which it is taken; the *exercise* which follows it; and on the quantity of *sleep*.

The teeth, as well as the stomach and the intestinal canal, of man, point out that a mixed aliment is that destined for him by Providence. Almost all substances from the animal and vegetable kingdoms, which are soluble in the fluids of the stomach, and contain no poisonous principles, either afford nutriment, or stimulate the digestive organs*. But, in order to nourish the body, the food must not only be dissolved, but it must be converted into an albuminous substance; thence it may be of easy digestion, and yet afford little nutriment to the system. "The further a substance," says a celebrated physiologist, "is removed in its composition from albumen, the less nutritious will it be, and the greater expenditure of the digestive powers is required for its conversion into chyle†."

With regard to the diversifying of food, the most conclusive experiments have established the fact, "that difference and variety of the kinds of aliment is an important circumstance to be attended to in the preservation of health‡."

Dry food, if nutritious, although it is the least fitted to add to the bulk of the body, yet, is the

* The doctrines of Pythagoras are founded on error: but, in England, the proportion of the animal to the vegetable food is too great. Whole tribes—the Hindoos, for example—live on farinaceous substances and milk.

† Muller's Physiology, (trans.) vol. i. p. 480.

‡ Muller's Physiology, p. 803.

best for increasing its vigour. In hazarding this assertion, however, it may be necessary to state, that the degree of the nutritious property of any article is in the ratio of its containing a due admixture of *saccharine*, *oily*, and *albuminous* principles.

Exercise should not be taken immediately after a meal; nor should a person eat directly after taking exercise: under both circumstances, a certain space should elapse; in the one case, to permit the process of digestion to be begun and even be somewhat advanced; in the other, to enable the hurry of the circulation to subside before the stomach is excited to exertion. That rest, however, which induces sleep is hurtful; and it should be known that much sleep favors obesity, but diminishes vigour.

If excess of diet, improperly timed exercise, and too much sleep, be detrimental to health,—abstinence, over-exertion, and too little sleep, are even more hurtful. Abstinence in particular, and long fasting, affect both the nervous and the vascular system; and, in the same manner as in excess, vomiting is sometimes excited; thence the nervous arrangements which are subservient to digestion are disturbed, the regular functions of the economy impeded, and diseases excited. Regularity in the periods of taking our meals, therefore, is not only consistent with the proper regulation

of our domestic economy, but it enables one supply of food to be digested and assimilated before another is introduced into the stomach; and the best indication of the necessity of such a supply is the return of appetite. The intervals between each meal, except during sleep, should not exceed six hours; although there are few men, in the present day, who have any business or profession to occupy their time, who do not fast daily for nine hours. On the contrary, women who can afford to eat luncheons seldom fast more than three or four hours. The first-mentioned custom is certainly the most injurious to health: it not only tends to produce dyspepsia, but it also favors apoplexy. It is not easy, however, to lay down any general rules for the number of daily meals: in my opinion, they should be limited to three; namely, breakfast, dinner, and tea.

Breakfast is the best meal for a healthy individual, as it is not indulged in before the last meal which was taken has had ample time to be duly assimilated, and the natural appetite to return. This is the case in health: but, in weakened states of the habit, the length of time between the evening meal of the preceding day, and the breakfast of the following morning, causes the nervous energies of the stomach to suffer; consequently the appetite is weakened, and an uneasy sensation is experienced, different from that of hunger. It

is accompanied by a feeling of debility, great depression of spirits, and a defective state of the secretions. In this condition of the habit, a draught of cold water, on getting out of bed, affords a moderate stimulus to the organ, and fits it for acting upon the food at breakfast. The sense of appetite is also heightened by friction over the stomach, by the shower bath, and especially by exercise, either on foot or on horseback, before breakfast.

In health, breakfast should be a solid meal, and a moderate quantity of animal food indulged in; and this is by no means incompatible with either tea or coffee: on the contrary, a greater supply of liquid is required than at other meals, to make up for the waste by perspiration and other causes during the night; and liquids are then instinctively desired. Tea, coffee, and weak cocoa are well adapted for this meal; but, in dyspeptic conditions of the stomach, these preparations increase that evil: weak beef-tea, properly made*, is preferable, or at least it is much less deleterious.

Dinner is at the present period, in the upper ranks of society, not only the most unseasonable meal, from the late hour of the day at which it is eaten, but it is also the most unwholesome, from

* See Chapter on Cookery.

the variety of the dishes and the incongruous admixtures which the art of cookery has devised for the gratification of the pampered palates of the luxurious. The abuses and the excesses committed at this meal are indeed a most fruitful source of disease. It is a mistake to suppose that it is the wine of the festive board, especially the Champagne, which is then handed round, that engenders Gout; it is the excess in quantity, as well as the stimulant quality of the viands, which are the source of the evil. To the same cause may be ascribed many of the cases of Apoplexy and Palsy which occur among the higher ranks, and in the class of wealthy citizens. Amongst the latter, indeed, something is due to the late hour of dining, after a long-protracted fast, during which the brain and nervous system have been much excited, and consequently exhausted. The application of an excess of stimulus, under such circumstances, is sufficient to cause that disturbance, both of the circulating and the nervous system, which induces the fatal diseases to which we have just referred.

When luncheon is taken, the late dinner, if it be not heavy, is less objectionable; as, under such circumstances, dinner may be regarded as a supper, taken at an hour sufficiently early to permit the food to be well digested before bed-time arrives. It is on this account that ladies, who all,

more or less, indulge in a hearty luncheon, so rarely suffer from Apoplexy and Palsy, compared with men, who dine late and eat heartily, after fasting from breakfast to dinner time, a period generally of eight hours. But women, who eat a hearty luncheon and also a dinner, taking, at both repasts, from two to three glasses of wine, and whose exercise is chiefly in a carriage, rapidly become plethoric*. It is scarcely requisite to remark, that, if more food be taken than the ordinary waste of the body demands, repletion must follow; and if the excess be continued to a degree to excite the powers of life beyond a certain point, then diseased actions of various kinds must follow; and whilst the individual is indulging in the supposition that the increase of bulk is the indication of exuberant health, the foundation of a host of diseases of an inflammatory character is already laid.

But the deleterious influence of the mid-day repast is not solely felt by the higher ranks of society. The hour of dining may be said to be unexceptionable amongst that portion of the middle classes engaged in trade, as well as the labouring class; but the nature of the food, and the

* Sir Charles Scarborough's advice to the Duchess of Portsmouth is applicable to every woman who can afford to live well:—"You must either eat less, or use more exercise, or take physic, or be sick."

excess in point of quantity indulged in, especially amongst the poor, with the hasty manner in which the meal is eaten, and the exertions which immediately follow it, before the digestive process is even commenced, are the exciting causes of many diseases.

Amongst the higher classes, whose occupations do not call for such exertions, an idea prevails that exercise, either on foot or on horseback, is essential to promote appetite and aid digestion. The propriety of this custom cannot be disputed, when the exercise is moderate and taken before a meal: but when it is carried to fatigue, or when the meal, especially dinner, is taken before the individual has rested, it deranges the function of digestion; and, when Dyspepsia is present, it tends to aggravate and render that disease permanent. It should never be forgotten that some of the worst and most fatal diseases to which flesh is heir, commence with indigestion*. The more sedentary the occupations are, the less should be eaten, and the less stimulant should be the food. The mental faculties are clearer and more energetic under a temperate than a full diet. Newton was satisfied with a biscuit and a glass of canary when he was composing his Treatise on Optics. He who feels

* Among others, it develops Consumption in those predisposed to tuberculous depositions in the lungs.

drowsy after dinner may be assured that he has eaten too much. Persons of a delicate habit of body, in particular, suffer from excess in eating: it causes a sensation of fulness and distension of the stomach, flatulence, disturbed sleep, nightmare, dreaming; and a state of the nervous system which favors apoplexy.

The unremitting indulgence, also, in the use of malt liquor, among the poor and the middle ranks, to a degree, even amongst the most temperate, bordering on excess, is a universal cause of dyspepsia and of many other diseases. Wine, even in moderation, when daily used, is equally hurtful: it over stimulates, and consequently exhausts the powers of life.

That meal which is now almost universally termed *Tea*, from the nature of the beverage then drank, is beneficial, inasmuch as the food taken at dinner, being in a few hours converted into chyme, requires a certain degree of dilution to enable the soluble matter to be carried into the blood, where it is to undergo its final change, and to be rendered fit for assimilation into the substance of the body. This meal may, consequently, be regarded as an aid to enhance the utility of that which precedes it a few hours, rather than an essential repast. Under such circumstances, little or no solid matter is taken at this time by those who dine late. By those who dine early, it is re-

garded as a light refreshment between dinner and supper, in the same manner as luncheon is between breakfast and dinner by those who keep more fashionable hours.

With respect to *Supper*,—the dinner of the present period, amongst the upper ranks, is equivalent to the supper of our ancestors, who dined at an hour when many of their successors are breakfasting, and supped between five and six o'clock in the evening. The supper of the tradesman and the labourer is not only the heaviest meal of the day, but it is taken just before the hour of rest. Now, although habit has a powerful influence in reconciling the animal economy to circumstances which would otherwise prove highly detrimental, and accommodating the system to a state which is unfavorable to the process of chylification, or the conversion of the food into blood, yet, as a general principle, hearty suppers are injurious. The old adage, however, "that there is no rule without an exception," holds good with respect to suppers of a *light* kind, for those who dine early, and undergo fatigue in the after-part of the day. The period which elapses from tea-time to breakfast-time the following morning is too long to fast: for, if it be an undoubted truth, that abstinence cannot be borne with impunity; that it causes general debility, enfeebles the circulation of the blood, depresses the nervous energy, de-

stroys the powers of the stomach, and produces emaciation as its first effects; then, it is evident that long fasting must be productive of the same effects, in a more limited degree; and therefore cannot fail to prove injurious*. On this account, a light supper is not only allowable, but it is essential for the maintenance of health in those who dine early and work after dinner; and for those of sedentary habits, and literary men who work late at night, something light—for example, a bis-

* I trust it will not be thought out of place here to mention some of the general morbid effects of fasting; more especially as the zeal of one set of well-intentioned religious enthusiasts is labouring to restore the fastings of the primitive church as an essential duty. It must be remarked that these effects necessarily vary in different individuals, and different conditions of the digestive organs; but the following may be regarded as those which result from long fasting. The first are feelings of general debility, which are followed by "fever, delirium, violent passion, alternating with the deepest despondency;" the temperature of the body is lowered; "the respiration becomes fœtid; the secretion of the kidney is acrid and burning;" the emaciation of the body is extreme; and, when the fasting has been so protracted as to terminate in death, the stomach has been found contracted. Fasting, it is true, has been often borne for a long time with impunity in disease, especially in Insanity: but in health it cannot be supported many days without imminent risk to life. The strict observance of the Catholic fasts has often been productive of Dyspepsia: and other enthusiasts, who have regarded abstinence a virtue,—for instance, according to Pinel, the Bramins, the Fakirs, and the Anchorites of the Thebaid,—equally suffered from this cause.

cuit or a piece of bread, and a small quantity of water, should be taken before going to bed; otherwise the nights are likely to be as restless as when the supper is so heavy as to oppress the stomach.

A question here arises—is excess in quantity as injurious as the improper quality of food which has been mentioned? In reply, it is difficult to determine on what excess in quantity depends, or how it is to be determined. I believe that the best guide is never to continue eating until the stomach feels oppressed or distended; and never to take a single mouthful after the appetite flags. If these natural intimations were always attended to, excess would rarely occur. It is a well-known fact, however, that a change in the nature of the dish will re-excite the appetite; and excess may be present before the individual is aware of it: but, from whatever cause, excess cannot frequently occur with impunity.

The custom of not masticating the food completely is a very common cause of Dyspepsia. Before the stomach can act properly on the food, mastication is necessary to break the cohesion of the organic matter, in order to aid its solution in the stomach. It extends the surface of the substance to be acted upon by the juices of the stomach, in the same manner as pulverization aids the action of chemical solvents upon common

matter. There is also, probably, some influence of the saliva, which mastication mingles with the food, in aiding the solution of solid matters in the stomach, although this is undetermined. At all events, mastication, mechanically considered, assists digestion; and nothing is more likely to act as an injurious irritant to the alimentary canal than unmasticated food.

That the stomach secretes or forms a juice which operates as a solvent upon the aliment introduced into it, is a well-established fact: but, besides this, much of the effect of the digestive function depends on the influence of the nervous system; consequently we may duly observe that appetite fails, and digestion becomes imperfect, whenever this part of our frame is deranged by anxiety of mind, or other depressing passions; whilst, on the contrary, whatever tends to induce a quiet and tranquil state of mind, aids digestion and promotes health. These mental affections, also, influence powerfully the condition of the liver; the health of which, and the due secretion of bile, are essential ingredients in the conversion of the food into *chyle*; and, consequently, in the promotion of the vigour and the health of the body. If good bile be not present in the bowels, chyle is not formed, assimilation is imperfect, and emaciation and disease must follow.

3. Much of the preservation of health depends

on the proper timing of exercise, before and after meals. The first part of the digestive process,—namely, the solution, or, as it is termed, the *chymification* of the food,—as has been already stated, requires rest: but as soon as this is over, and the soluble part of the chyme, namely, the chyle, enters the blood-vessels, exercise is salutary; and the necessity of it, at that time, is demonstrated by the instinctive desire for locomotion which displays itself. But this feeling is more frequently abused, than properly taken advantage of to promote the object for which it is designed,—namely, the invigoration of the body, by the means of exercise, in order to equalize the circulation, to promote the due performance of the secretory system, and to ensure the perfect assimilation of the nutritive portion of the food. Exercise, however, fitted to induce these beneficial effects, is not to be found in the midnight exertions of the ball-room, and much less in the hot and crowded drawing-room. It is in the open air, and in situations where the mind can be amused with the tranquil pleasures which result from the view of natural scenery, and from social intercourse, that it must be enjoyed. The author, however, is no ascetic; his objection to balls and fashionable evening parties is founded more upon the evils arising from the late hour at which they commence, when the body is already in a half-feverish

condition, from the various excitements of the previous day, than even the heat and foul air generated by the multiplicity of lights, and the over-crowded state of the rooms.

With respect to *exercise* generally, its *excess* or its *defect* may contribute to produce diseases. The necessity of voluntary muscular motion in all animals is undoubted; in man, it cannot be neglected without risk; at the same time, its excess is productive of equal danger. To render this more obvious to the non-professional reader, let us briefly examine the nature of the *contractile property* of muscles; the influence of *volition* upon it; the sources of the *locomotive power;* and the influence of this upon the preservation of health, and the formation of disease.

a. The *contractile* property of muscles intimately depends on the influence of the *blood*, and that of the *nerves*. .

When the current of blood to any muscle is obstructed, it loses its property of motion. A certain supply of blood is therefore requisite for maintaining the function of every moving organ: this blood must also be of the arterial kind, or that which has undergone the change which breathing is intended to produce in the vital fluid. Persons in whom the blood is not properly arterialized, owing to a malformation of the heart,—blue persons, as they are termed—are incapable of any

considerable degree of muscular movement: and limbs, the principal artery of which has been tied, lose, in a great degree, both their temperature and their muscular movements; facts sufficient to prove that a constant supply of arterial blood is necessary for the preservation of the muscular energy. But the voluntary motor power of muscles requires also the influence of the nerves: whatever lowers the excitability of the nerves, therefore, paralyzes muscles, and they cease to be under the influence of the will. The involuntary muscles are also equally influenced by the nerves. It is, however, to the voluntary movements only that our attention is now to be directed.

Every voluntary movement of the body depends on an impression of the will on what are termed the spinal nerves, spread out on a certain part of the brain, "and exposed," to borrow the language of a celebrated physiologist, "to the influence of the will like the keys of a pianoforte."* How the mind is directed to the particular key, or nerve, requisite to effect the contemplated movement, is beyond our powers of conception; we only know that the act of volition necessary to cause motion is the conscious direction of the nervous principle in the brain upon that part of the nervous apparatus destined for exciting muscular

* Muller—Elements of Physiology, trans. p. 934.

movements. A very frequent or constant repetition of the same movements causes, at length, a difficulty in their accomplishment, and exhaustion; thence, rest, alternating with action, is requisite to increase power, and to maintain the healthy condition of the muscular system. When action and rest duly alternate, the susceptibility of the muscular fibre is augmented, and the movements of the same set of muscles are capable of being excited by the slightest influence of the will; a fact which is daily demonstrated by jugglers and other performers of rapid movements. On the same principle, walking exercise, or running, becomes more easy and less fatiguing, in the direct ratio of the frequency of its employment.

The mechanism of walking is regulated by the same principle of alternate motion and rest. The body is supported on the legs alternately. At the time that the one leg (*a*) gives the movement which impels the body forward, the other leg (*b*) is at rest, and supports the body; and only as the step made by (*a*) is nearly finished, does it (*b*) proceed to raise the foot from the ground to give the body the fresh impulse, whilst (*a*) in its turn becomes fixed, and is the supporting agent. It may, however, truly be said that there is a period in every step, except in running, in which both feet rest on the ground; but it is extremely short; and does not alter the principle of alternate rest

and motion. The trunk of the body also shares in these alternate movements; it is at one moment inclined forward, and at the next raised to the perpendicular, so that the lumbar muscles suffer alternate contraction and relaxation; and the body rises and sinks at each impulse forwards. In walking, the movement of the arm is always in the opposite direction to that of the leg on the same side: the arm, on the side which gives the impulse, moves forward, and that on the opposite side is thrown backwards; movements essential to preserve the equilibrium of the body.

Running, except in point of quickened motion, differs from walking only in both feet never being on the ground at the same time.

Enough has been said to explain how essential to these movements is the healthy condition of the nervous system, and, as the vigor of the muscular system depends on its adequate supply of blood, how requisite the perfect condition of both systems is for muscular exertion. Exercise in its turn promotes the health of both systems, by equalizing the circulation of the blood, in order to supply that nutriment which is essential for their integrity, and to render them adequate to the performance of their functions.

A certain quantity of locomotion or exercise is necessary for the preservation of health at every period of life: without it, neither the function of

the lungs, nor the due circulation of the blood, can be carried on; nor digestion effected, nor assimilation perfected. On the other hand, too much exercise hurries to excess the circulation, and disturbs the functions of life; whilst the exhaustion which must succeed to violent exertion, both of muscular and nervous energy, when too long continued, is not only likely to impair health, but even to terminate in death.

In *infancy*, vertiginous affections and inflammation of the brain, terminating in dropsy (hydrocephalus) of that organ, have resulted from tossing the child high and catching it again upon the hand; and, not unfrequently, at a later period, after the child has begun to walk, the same effects may result from swinging it round by the hands. In *adolescence*, the male part of the species, boys and young men are most likely to suffer from over-exertion; girls and young women from defective exertion. A boy of a delicate habit of body may have the foundation of an incurable disease of the heart laid by a single excessive effort in running; and the author has witnessed more than one instance of pulmonary disease, which terminated fatally, from the attempt of young men to walk distances, within a given time, to which their strength was inadequate. Incurable diseases have occasionally resulted from young men, even of robust frames of body, over-exerting themselves

in cricket matches and in rowing; exercises which, in moderation, are not only harmless, but salutary. Girls and young women are too much restricted by custom from the free employment of their limbs. Their exercise rarely exceeds a formal walk; and the undue proportion between even this and their sedentary occupations leads to the most serious consequences; namely, curvatures of the spine, mesenteric affections, cough, and that deposition of tubercular matter in the lungs which constitutes pulmonary consumption. In *adult* age, in both sexes, health cannot be sustained, nor disease warded off, without moderate exercise, daily and regularly taken.

A man whose occupations are sedentary, and especially if his mind is also much engaged, should rise early and take walking exercise before breakfast, to an extent adequate to counterbalance the period which he is destined to sit during the day. When this cannot readily be accomplished in winter, or from the individual being an inhabitant of a town which affords no opportunity for such exercise, friction should be used over the body generally, either with a flesh brush, or with horse-hair gloves*.

The same danger results from excessive exer-

* Gloves for this purpose are sold by almost all the druggists in London.

cise, in *manhood* as in adolescence; and the more sedentary the habits of the individual, the more likely is risk to occur. A gentleman came to town from Woolwich to dine with a friend; and, having some business to transact in the forenoon, he brought his dressing-case with him. On arriving at Charing Cross, whilst paying the coachman his fare, a stranger offered to hold his dressing-case, and ran off with it. The gentleman pursued the thief, and ran at the height of his speed as far as the other end of Westminster bridge before he overtook him. This effort brought on palpitation of the heart, which became permanent, and terminated fatally in six months.

On the other hand, too little exercise lays the foundation of numerous diseases; among which we may enumerate Hemorrhoids, Apoplexy, tubercular Consumption, and Dropsy. If with sedentary habits mental study is conjoined, the individual usually becomes dyspeptic, flatulent, subject to Diarrhœa, and a variety of nervous affections, accompanied with sleepless nights, which bring on Hypochondriasis, and not unfrequently Melancholy. Rousseau remarked that literary men are generally sickly and unhappy: but although this opinion is not literally correct, yet there are few very studious men who are not more or less hypochondriacal. Sedentary occupations, even amongst the labouring classes, lead to disease.

Shoemakers, weavers, and others, who follow trades requiring a sitting posture, often become dyspeptic; and sensitive, in a high degree, to every change of temperature and of weather. On the same account, many of the employments of women tend to generate nervous affections.

There is one description of exercise too little attended to; but which is, nevertheless, of great importance in warding off pulmonary diseases; namely, the exercise of the chest. Nothing is more essential for the preservation of health than the full expansion of the lungs, so as to maintain the free passage of the air to the minutest tubes and all the air-cells; to promote the pulmonary circulation; and to favor that complete change in the blood for which the respiratory function is intended. Nothing tends more to produce this beneficial effect than recitation, or reading aloud, if it be not carried to excess; or taking full and repeated inspirations, successively, throwing back the arms and shoulders, so as to expand the chest, but with sufficient precaution that the exertion do not hurry too much the action of the heart, nor quicken to excess the respiration. It should never be carried so far as to prove distressing to the individual, nor to leave behind it a sensation of great languor.

It would be impossible, in a work of the nature of this volume, to enter into any minute

details respecting the influence of *mental affections*, and consequently of education, as a cause of disease. The subject, however, is one of the utmost importance.

The influence of mental impressions on the circulation of the blood is too well known to require any comment. The act of blushing; the instantaneous pallidness of fear; the turgidity of the face caused by violent anger; are daily and obvious illustrations of mental influence: whilst the quickened breathing of surprise and joy; the sighing, and the acute feeling of pain in the chest, which follow sorrow and other depressing causes; equally display the power of the passions over the respiratory function. The palpitations, the tremors, the faltering speech, and the dumbness, as well as the most extraordinary increase of muscular power, which various states of the mind induce, also strikingly demonstrate the power of the mental part of our nature over the moving organs; whilst its influence, even on the glandular system, is rendered obvious by the tears which follow sympathetic feelings; the perspiration that accompanies alarm; the eruptions; the sudden change of the hair to grey*, and the complete

* Stahl, a celebrated medical writer, mentions that a young man of high family, being condemned to death for a penal crime, became grey in the space of a single night.

loss of appetite and the powers of digestion, which are the result of the depressing passions.

"Violent and long-continued exertions of the mind fatigue the body." It is a well-known fact that excessive mental application in young persons, especially in those of a delicate frame of body, of both sexes, has frequently brought on that state of inflammation of the membranes of the brain which has terminated in dropsy of that organ; and if the boy or the girl escape this too fatal disease, their future life is rendered miserable by dyspeptic and scrofulous affections. When the exertion is the result of emulation in the young person, it should be checked, if the constitution be delicate; "otherwise," as has been justly remarked, "that which confers honor on the pupil, may be purchased at the risk of health, and even of life*." Great students have generally extreme susceptibility of nerves; consequently much irritability of temper; and they are necessarily more liable to the attacks of disease, and are also more difficult of cure than those less emulous of distinction. Over-study, besides, often defeats its object: it causes a kind of atrophy of the brain; and, as Rousseau remarks, "returns man to his original stupidity†."

* Cooke on the Mind and the Emotions, p. 9.

† Many instances, ancient and modern, might be quoted in proof of the evil of over-study in reference to health. Cicero was

The *exciting* passions, when in excess, give rise both to spasms and convulsions: the *depressing* passions relax the whole muscular system; the feet and legs are incapable of supporting the body, the features hang as if lifeless, and are devoid of expression, and the voice is rendered either feeble, or it suffers a temporary extinction. The power of volition in both cases is weakened: in the first, the distortion cannot be counteracted; in the second, the relaxation cannot be braced up by any effort of the will. The disturbed state of the action of the heart during inordinate mental emotions of either *excitation* or *depression*, is a striking proof how far the influence of mind operates upon the vital energies of the habit, and, consequently, how far health is under the influence of education.

Many facts might be adduced to illustrate the fatal influence of sudden, great excitement, such as occurs in *joy* or in *anger*. In the latter especially, the blood-vessels fill to turgidity, the heart acts violently, and the head suffers pain; and if the heart or its valves be in a state of disease, or the vessels of the brain be weakened, a paroxysm

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dyspeptic, and almost a skeleton; Pliny's life was rendered miserable by constant heart-burn; Bayle died a martyr to his unremitting application; and Sir Isaac Newton fell into a deep melancholy, which, for a long time, deprived him of the power of thinking.

of anger is a most likely instrument of death. It causes Hæmorrhage, Epilepsy, Jaundice, or some vessel of the brain gives way, and a fatal Apoplexy results. The daily newspapers teem with instances of this fact.

But it is not necessary that the excitement should be of the high description which occurs in violent transports of the mind. Long-continued irritation, like accumulating poison, undermines the health, and ultimately induces organic affections of the brain, the heart, or the liver; which, although the effort be not sudden, yet, produce an equally fatal issue.

It is not in one organ, nor in functional derangement only, that mental influences of the opposite kind display their injurious effects. Protracted anxiety, or mental depression of any kind, often produces not only habitual functional derangement of the circulating and nervous systems, but leads imperceptibly to structural or organic changes, either of the stomach, the liver, the lungs, or the heart; and even to incurable alterations in the brain or the spinal cord. In the poems of Mallet, is the description of a maiden who actually died of a broken heart, in the literal sense of the term.

Neither this, nor "the green and yellow melancholy" of her "who never told her love," is to be regarded as metaphorical or poetic fictions. The

pining, which leads to tubercular consumption, is of every-day occurrence; and several cases, besides that one quoted above, are recorded, in which the heart has actually burst, from the surcharge of blood thrown upon it by the influence of sudden abject grief. In this condition of the mind, the surface becomes cold, perspiration is absent, owing to the imperfect and languid state of the circulation; the breathing becomes embarrassed, and sighing is required to assist the transmission of the blood through the lungs. The vascular and the nervous lymphatic systems equally suffer, and a low inflammatory state is set up in various organs; thence liver diseases, Asthma, Consumption, enlargement of the heart, Epilepsy, Apoplexy, and Mania, are apt to supervene. The depressing emotions, also, strongly predispose to epidemic fevers, and lay the body open to the influence of infection.

It is true that mental impressions rarely act violently on the frames of those who enjoy robust health: but when the vital energy is already somewhat impaired, not only the daily incidents of ordinary life, but even the social intercourse of society, and the most common depressions, operate as causes of disease.

In the education of young women, too little attention is given to subdue the imaginative faculty, and to moderate sensibility: on the contrary, they

are generally fostered; and, instead of a vigorous intellect and healthy condition of mind, we find imagination and sentiment predominant over the reasoning faculties, and laying the foundation of hysterical, hypochondriacal, and even maniacal diseases. The truly frivolous occupations of fashionable life, and that affected refinement which debars natural and active exercise, also nourish these tendencies. They become predisposing causes of every form of nervous disease, which is awakened into activity by causes that, in a sounder state of body, would pass on unnoticed.

When a tendency to Hysteria exists, the utmost care should be taken to avoid exposing the individual to the influence of imitation, and especially to that of terror. Many a thoughtless frolic has awakened an excitable state of the nervous system, which has terminated in augmented Hysteria, or Epilepsy, or other convulsive diseases, or in loss of reason, or even of life.

The hazardous influence of sudden grief upon the brain cannot be more forcibly illustrated than by the following anecdote related by Dr. Cooke. A young medical man, who "was elevated to the distinguished post of tutor to Prince George of Cambridge, and was pursuing his duties to his royal pupil, in Hanover, highly to the satisfaction of the paternal Duke, was informed that his twin-brother had died in London. Although means

were adopted to ensure a delicate and guarded communication of the event, they were unavailing. He was thrown into agitation; the brain received a shock which it could not sustain, and mind was immediately lost. His language, previously so appropriate, now became idiotic:—'he is not dead'—'my brother is not dead,'—were the sentences he was frequently or continually uttering during a few days, when his earthly career terminated*."

It is an easy transition to pass from the morbid effects of mental emotions to those which result from that extraordinary condition of our existence in which we daily lose all consciousness, and in which the mind seems to suspend its influence over the body, and either lies for a time quiescent, or operates independent of it—namely, *Sleep*. "Half our days," says Sir Thomas Browne, "we pass in the shadow of the earth, and the brother of death extracteth a third part of our lives."

It is unnecessary for our purpose to enquire into the nature of sleep: we have only to investigate its influence as regards its perfect or imper-

* Mind and the Emotions, in relation to Health and Disease, by Wm. Cooke, M.D. F.R.C.S. p. 17.

fect nature, and the quantity essential for the preservation of health. That sleep is the most refreshing which is the most opposite to the waking state, or, in ordinary language, is the soundest; in which all consciousness, all memory, all volition, are suspended, and no nervous impressions are received sufficient to excite ideas or dreaming; or that state in which there is an apparent absence of every mental function. From this state the person awakes, nourished and refreshed, and fitted for the performance of all the duties of the succeeding day; and, when suffering under disease, he opens his eyes with a consciousness of improvement, and an anticipation of returning health, which, as it inspires hope and confidence, is of the utmost importance in forwarding its accomplishment.

Whatever tends to prevent sleep is necessarily productive of disease. Strong emotions of the mind, long-protracted intellectual exertion, and some narcotic substances, as, for instance, *green tea*, may be arranged among the causes of wakefulness. Great anxiety to produce sleep, in one lying awake at night, is preventive of it, on the same principle that it is opposed by any urgent train of thought. Another cause of wakefulness is the condition of the alimentary canal; thus we suffer a sleepless night after a full supper, and this is one cause of many of the restless nights in

the present period, the hour of dining being brought so closely upon that of sleep. It would be even less hurtful to sup immediately before retiring to rest, than to indulge in the full meal which is now taken four or five hours only before going to bed. The digestion at this time is so far advanced as to require the aid of exertion rather than of rest to complete it.

The late and heavy dinners of modern times are, indeed, very prominent causes of restlessness, dreaming, and night-mare: they may truly be said to

> ——— make sleep a pain,
> And turn its balm to wormwood.

Every source of irritation of the intestinal canal which can operate during sleep should be avoided; thence it is injudicious to take tonic or stimulant medicines at bed time; and, on the same principle, purgative medicines should not be taken in the evening.

It is extremely difficult to estimate the quantity of sleep best adapted to preserve health; much depends on the constitution of the individual, and as much on the nature of the sleep enjoyed. The oldest man whom the author ever personally knew, a man aged one hundred and eight, informed him that he had rarely exceeded

four hours of sleep in a night, at any period of his life. As much mischief may arise from too much as from too little sleep. If much sleep be indulged, the brain is brought into a condition unfavourable to its healthy functions, and favourable to apoplexy and coma. The indulgence of the propensity to extend the hours of sleep increases the desire for it often to an alarming degree. I once knew a young man who, from such indulgence, required sixteen hours' sleep in the twenty-four, and at length suffered from a stroke of palsy. On the other hand, too little sleep, by wearing out the powers of the brain and the nervous system from protracted stimulus, may cause the same disease.

RECOGNITION AND PREVENTION OF DISEASES.

With regard to the recognition and prevention of diseases, it is not the intention of this work to point out either the forms of diseases, or their causes, or their treatment; but merely to point out the means of recognising their approach, and of preventing or warding off diseases of common occurrence, and especially those which, at some previous period, have attacked the same individual. By the possession of the knowledge adequate for this purpose, many diseases of the most serious character might be either checked at

once, or rendered mild in their progress; others, the seeds of which may be said to be laid in the constitution, rendering it predisposed to their attacks, might never be permitted to break out; and the fatal issue, even of severe and incurable diseases, might be removed to a distance far beyond that at which it usually occurs, were the eyes of friends and relatives opened to the danger that threatens the fated victim of the malady. The remarks upon each disease shall be as condensed as the nature of the subject admits.

I. GENERAL DISEASES.

a. Fevers.—When fever, especially of the continued kind, is present in a family, the anxiety which naturally is awakened in the near relatives of the patient tends to strengthen its infectious influence, if it possesses any; and, at all events, to place those attending the patient in such a condition as will awaken a susceptibility or predisposition to the disease. Whatever tends to impair the health, operates, indirectly, as a predisposing cause of infection; thence the necessity of supporting the vigour of the system by an adequate supply of proper and wholesome food. On the other hand, nothing like over repletion should be indulged; although the food, in moderate quantity, ought to be of the most nutritious kind.

The moderate use of wine, also, contributes, not only during attendance on infectious fevers, but during the prevalence of epidemic fevers, to obviate the predisposition to their reception; but, on the same principle that excess of food is hurtful, the undue use of wine or of intoxicating liquors of any kind is injurious, and indeed increases the susceptibility to infection. The same is the result of bodily fatigue, protracted watching, little or disturbed sleep, and fear or grief; whilst fortitude and equanimity of mind are as certain safeguards.

The occurrence of fever more than once in the same individual displays a tendency to the disease which should not be overlooked; thence such persons should never sleep in the vicinity of stagnant water; nor in houses in which any fœtid effluvia arise from drains or cess-pools; nor in the neighbourhood of burial grounds. It is no unusual circumstance to find those living in the vicinity of churchyards with sallow countenances, febrile states of the habit, and labouring under dejection of spirits.

Exposure to sudden alternations of atmospheric temperature is always most cautiously to be avoided by those liable to fever; thence currents of air; coming out of hot rooms into the cold evening air, or passing from it into heated rooms;—and too soon throwing aside flannels which

have been worn through the winter;—are all exciting causes of fever in such individuals.

At one season of the year, that epidemic form of fever, which has been named *Influenza*, prevails in this country; it appears suddenly, and leaves behind it debility to a great degree, independent of the mortality which it inflicts. Hitherto, the cause of its occurrence has remained an unresolved problem; but, as far as my own experience can be relied upon, I am disposed to refer them to the prevalence of easterly and north-easterly winds. Whatever may be the causes of Influenza, it generally attacks the delicate; and there is, also, a liability to the recurrence of the disease, which long remains in the constitution. The disease itself is always accompanied with extreme depression of the vital powers. It seems to attack most particularly the mucous membrane lining the air passages, indicated by inflammation of the throat, cough, and general irritation of the windpipe: the necessity, therefore, of keeping within doors, and guarding the mouth from the influence of the prevailing wind, need not be insisted upon. As the disease, however, is one of debility, food and regimen, independent of medicine, calculated to restore the depressed vigour of the system, are requisite; and, by improving the tone of the habit, we not only take the most effectual means of combating the liability to the recurrence of the

disease,. which is so peculiar to those who have once suffered from it, but we also lessen the period and the severity of the convalescence.

In some states of fever, an eruption, termed *Miliary*, spreads over the skin, consisting of minute vesicles upon inflamed bases. Formerly, when febrile affections were improperly treated, and long-continued sweating was kept up, this eruption was by no means uncommon: it is now noticed chiefly with the view of cautioning against the error of keeping persons in diseases of any kind in an over-heated atmosphere, or overloading the patient with bed-clothes, or administering hot and stimulating drinks. Miliary fever may, indeed, be regarded in almost every instance as a symptomatic affection; and the only thing requisite to prevent it is free ventilation, cooling drinks, and a strict attention to those means which the physician will necessarily point out, should the disease actually appear.

Those fevers which are attended with eruptions on the skin, are contagious, and seldom occur but once in a lifetime. They require little notice in this place, unless it be to point out the means of arresting the extension of the infection, and limiting the sphere of its action.

Scarlatina, in all its forms, is powerfully contagious; thence the utmost caution is requisite in permitting the return home of any member of a

family who has lately had the disease at school, or elsewhere; especially if the family consist chiefly of daughters between the ages of fifteen and twenty, at which period the habit is most susceptible of the contagion. This caution may be lessened, when those in the family have had the disease; but it cannot wholly be set aside; for instances have occurred in which a second, and even a third attack has taken place; but they are fortunately rare.

It is requisite to notice here an erroneous popular idea which prevails, that *scarlatina* and *scarlet fever* are distinct diseases. The mildest and most malignant forms of this fever are mere varieties of the same disease, dependent, in some degree, on the state of the habit of the affected person at the time of receiving the infection; and, also, on certain unknown epidemic conditions of the atmosphere.

It has been asserted by the homæopatists that the administration of minute doses* of Extract of Belladonna will act as a safeguard against the action of the infection of scarlet fever; but, at least, this is highly problematical. After the disease is over, the frequent use of the warm bath tends greatly to aid the desquamation of the

* Three grains of the Extract are to be dissolved in one ounce of distilled water, and two drops (one-eightieth of a grain) of the solution are to be given twice a day, to a child one year old, and one drop more for every year above that age!

cuticle, which should be complete before the patient again mixes in society. The body linen, worn during the disease, should either be destroyed, or put into an hermetically closed vessel, and subjected to the heat of boiling water for three or four hours. For the mode of purifying the apartments of the patient, see *Fumigations.*

Measles is nearly as infectious as Scarlatina; consequently similar cautions are requisite. It should, also, be understood that they are infectious before the appearance of the eruption. In no case should the disease be treated domestically; but, it may be important to inform our readers that, if the eruption does not come out in what is usually regarded a proper manner, nurses are very apt to give the children stimulants, such as sulphur in brandy and water, punch containing saffron, and syrup of saffron, all of which are injurious; consequently, under such circumstances, nurses should be closely watched. The custom of discharging the medical attendant immediately after the disease has run its course, and the patient is apparently well, is also improper, as the sequel of Measles is often as hazardous as the disease itself.

The influence of vaccination in protecting the human system from the infectious influence of *Small-pox,* or modifying the disease so as to render it devoid of danger, is now generally ad-

mitted. The infection of the Small-pox is communicated by the air, at some distance, even in the open air; nothing, therefore, is more reprehensible than sending children labouring under small-pox into the streets or squares of a town, or into the fields in the country. Every one who has not been vaccinated, or had Small-pox, is susceptible of the contagion at every period of life; and the risk is not lessened by the fact that the person had been previously exposed to the disease, and had resisted it. A person may resist it at one time, and yet be susceptible of it at another. A full and plethoric state of habit predisposes the person not only to receive, more readily, the infection, but also to suffer more if he is attacked by it; thence the necessity of those who have neither had Small-pox, nor have been vaccinated, living sparingly, and refraining from the use of malt liquor, when Small-pox prevails as an epidemic: but, at the same time, although temperance is requisite, yet the opposite condition, namely, one of debility, is equally injurious. As a general rule, Small-pox occurs once only in life, to the same person; but every medical practitioner knows that there are exceptions. I have known four cases in which the disease returned a second time. In one case, the patient had been inoculated, and had the disease severely at that time, as well as on its recurrence.

Various means have been proposed to prevent the formation of those cicatrices named pits, which so frequently disfigure the faces of those who have suffered from confluent Small-pox. Among other means, M. Nenat* has given a most favourable account of the influence of the compound mercurial plaster, a remedy which appears to have been suggested by MM. Serres and Gariel†. It appears to check the suppuration of the pustules, when it is applied early, to convert them into solid tubercles, which terminate in a furfuraceous desquamation, without leaving any scar. I have found olive or almond oil equally efficacious as these applications; and I believe that the benefit depends on guarding the pustules from the action of the air.

Chicken-pox is so mild a disease, and generally so free from all sympathetic constitutional disturbance, that it demands no particular notice.

Erysipelas is, in many cases, an infectious febrile disease; but, like every other malady which is capable of being communicated from one person to another, it only attacks those predisposed to receive the infection. What state of body causes this predisposition is not well understood; but it is probably connected with derangement of the

* Gazette Med. de Paris, July 1839.

† Archives Gen. vol. viii. p. 468.

digestive organs, or, in other words, an irritable state of the stomach and bowels. On this account, individuals who are exposed to the infection, or who are liable to attacks of the disease, should be careful in diet, avoiding indigestible and irritating food, not indulging in excesses of any kind, and sedulously relieving the bowels; but at the same time avoiding the too free employment of purgatives.

When Erysipelas appears in a house, the sick person should be separated from the healthy inmates; and after the termination of the disease, whether that be favourable or otherwise, the bedding and bed clothes should be washed and fumigated; and the room, after fumigation, white-washed and painted. So infectious is Erysipelas, that even this system of cleansing is sometimes insufficient to check the extension of the disease. In one of the wards of the Infirmary of Montrose, notwithstanding all the patients were removed, and fumigations and white-washing were adopted, the disease continued to attack every fresh patient who was placed in it; so that it, at length, became necessary to shut up the Infirmary for a considerable time.

When Erysipelas has once made its attack, few diseases are more apt to recur. The best mode of guarding against this susceptibility is to invigorate the body, without inducing plethora.

I have seen the tepid shower bath most useful in such cases. A moderate share of wine may be taken, but malt liquors should be avoided.

Nettle-rash (Urticaria) is a non-contagious, general disease, in a great measure depending on the condition of the digestive organs. In many instances, indeed, it originates from certain articles of diet operating in a manner not usual, owing to a peculiarity in the habits of those subject to attacks of the disease. Thus, white of egg*; cheese; shell-fish, as mussels, lobsters, crabs; some other fish, especially the coloured fish, as salmon, mackarel, pike, tench, carp, and barbel; honey; sugar; cucumbers; mushrooms, bitter almonds; potatoes; some fruits; vinegar; and some kinds of wine. Whatever may be the cause, nothing should be done to repel the eruption, as injurious results have followed such attempts, when they have been made in the absence of medical advice. The offending substance should be detected if possible, and avoided in future: and this may generally be effected by leaving off one substance of diet after another, and noticing the results.

It is not the object of this volume to enter

* Singular as this may appear, the truth of the remark was demonstrated in the person of the late celebrated Professor James Gregory of Edinburgh, the author of the *Conspectus Medicinæ*. The smallest morsel of white of egg caused an eruption of nettle-rash over his body a few minutes after it had been swallowed.

into an investigation of the nature and medical treatment of diseases; consequently, I refrain from making any remarks respecting the Protean character of *Scrofula*, and the multifarious forms which it assumes. The preventive measures, which we possess, for arresting the disease in its early progress, are numerous; and to these only have I to direct the attention of my readers. This is the more important, as the disease is hereditary, and the germs of it are laid in the constitution before birth.

The chief object, when the disease is hereditary on the mother's side, or from both parents, is to correct the tendency in the first nutriment of the infant. Instead, therefore, of being suckled by the mother, or brought up by hand, the child, at birth, should be consigned to a robust, *healthy* wet-nurse, with an abundant supply of milk: and on this alone should it be nourished for the first seven months of its life, or until the first teeth are cut, after which a little beef tea, with pounded, good biscuit, boiled to a pulp in water, should be given once a day. The child should be warmly clothed; but it should from the first wear no cap. It should be daily sponged with cold salt and water, followed by friction over the whole body; and be as frequently carried into the open air as possible. The nursery should be at the top of the house, well ventilated, spacious and lofty.

As the child advances in age, the same principle should regulate its management, namely, that of imparting tone. A plain animal diet, with a moderate share of well-boiled vegetables, avoiding pastry and sweets; employing warm clothing, especially flannel next the skin, not too soon left off in summer, and resumed early at the approach of winter; the use of the tepid or the cold salt water shower-bath, every morning throughout the year; well ventilated rooms; and moderation not only in study and business, but also in the pursuit of pleasure, with strict temperance, comprise the best mean of preventing the development of the disease in those predisposed to it, and protecting those, not so predisposed, from its approach. The moral management is not less essential than the physical; whilst, in the dull and apathetic, the mind should be roused, precocity should be opposed, and whatever can awaken sensibility in those naturally sensitive be strenuously withheld. In a word, every means should be adopted which can aid the improvement of the constitution.

Rickets may be almost regarded as one of the forms which scrofula assumes. When the disease appears early, it is usual to advise that the child should be weaned sooner than might otherwise be necessary, as protracted suckling disposes to the disease; but this is an error: it should be continued until the process of teething is nearly over. After the weaning, the diet should be such

as will support strength without quickening the circulation of the blood, or generally stimulating. The clothing should be warm, and the greatest care taken to avoid damp: the sleeping apartment ought to be well ventilated; and, during the day, the child should be constantly in the open air. When the child is carried, it should be on either hand, changing alternately; but never in the hollow of the arm, as is too often practised by lazy nurse-maids.

Another affection, namely, *Mesenteric disease* (tabes mesenterica), has so intimate a connection with scrofula, that I prefer mentioning it here, rather than under diseases of the bowels. When it appears, the bowels enlarge, and the extremities waste, especially the legs. It is most likely to be prevented by good country air, in proximity to the sea, and exercise to the limit of fatigue; or, when this cannot be taken, by friction twice a day over the belly and along the spine. Flannel should be used next the skin throughout the year, and the diet ought to be of the most nutritious kind. When the child is very young, a protraction of the period of lactation, by means of a succession of good healthy nurses, has been judiciously advised*.

* Dr. Joy, Cyclopædia of Pract. Med. vol iv. p. 150

HEREDITARY PREDISPOSITION.

In concluding these brief details on the prevention of diseases of the general system, it would be a culpable neglect to overlook the influence of hereditary predisposition, and not to point out the prophylactic management in such cases. That the tendency to some diseases is transmitted from parents to their offspring, is as certain as the transmission of family likeness, general bodily configuration, and disposition. Tubercles, which may be metaphorically termed the seeds or germs of Consumption, have been found in the lungs of new-born infants, the offspring of consumptive parents; but it is the predisposition only which is most commonly transmitted, such as we may constantly observe in the children of scrofulous, gouty, and insane parents; and we even find that the disposition to severe bleeding on the infliction of slight injuries, which is termed the hemorrhagic effort, Asthma, Hysteria, and many diseases of the skin, continue in the members of the same family from one generation to another.

Hereditary predisposition to certain diseases is, however, not always observed in successive generations: it may disappear in one, or even in two, and reappear in the third: the disposition or tendency is not therefore to be regarded as absent.

but the exciting causes have either not been applied, or they have not been adequate to the effect of calling the germs of the disease into activity. It is unnecessary, for our present object, to examine the arguments which have been advanced for and against the causes of hereditary transmission of diseases; it is sufficient to know that it exists; and it is requisite, regarding its existence as a fact, that the means of shielding those thus hereditarily predisposed, from the influence of the deleterious agents which call the diseases to which they are liable into existence, should be set forth. The means of effecting this shall be pointed out under the head of each disease: it is only necessary to remark here, that intermarriages in such families as possess the same predisposition should be sedulously avoided.

It may be justly said, that under no circumstances should legislative enactments interfere with the domestic affections and bonds of society; but, as there is no rule devoid of exceptions, so, when Insanity is hereditary in a family, the welfare of society demands that its members should be legally debarred from forming matrimonial alliances. The tables published by M. Esquirol of the cases of Insanity treated in the Salpetriere, demonstrate that nearly one-third were cases of hereditary transmission. In this country this poison is spreading far and wide, tainting the

stream of society in every direction; and it is indeed melancholy to gaze upon the shadows of coming events, with such a prospect before us as must be the necessary result of the rapid extension of the disease. Such an extension must follow indiscriminate alliances, especially when the predisposition exists in both parents.

That Insanity often displays itself in families at a particular period, and under similar circumstances, should also be generally known; for, if the disease is late of showing itself, it may lead to an erroneous conclusion; and alliances may be formed under the supposition of a freedom from the disease, whilst it is ready to appear at the usual period at which it has hitherto displayed itself. M. Esquirol mentions the case of a family in which the father, the son, and the grandson, committed suicide about their fiftieth year; and many other instances in proof of this fact might be quoted. A question of vast importance here presents itself:—are there any means by which the disease may be warded off in the hereditarily predisposed? It would be impossible, in a work of the description of this volume, to enter into details, inasmuch as the subject involves the numerous exciting causes of the disease; but it may be laid down, as a general rule, that the more completely the body can be maintained in a condition of health, the less influence do these ex-

citing causes exert upon the brain and the nervous system: thence the great importance of attending both to the physical and the moral education of the members of families in which the disease has at any time been displayed.

Dr. Pritchard has justly remarked, that "there are two points of view under which the injurious effects of wrong education may be considered." A predisposition is laid in the temper and moral affections by too great indulgence, and a want of moral discipline, as these tend to nourish caprice and violent emotions; and, in such persons, the exciting causes of madness operate with more power than in those of well-regulated minds. On the other hand, the same result arises from premature and overstrained exercise of the intellectual faculties. In the moral education, therefore, of those predisposed to Insanity, every thing which can reduce the feelings under strict discipline must be enforced; the imagination should be tamed, and every cause of high excitement restrained, whilst study should be kept within the narrow limits of mediocrity. "The regulation of mental exercise," says Dr. Pritchard, "in young persons whose nervous systems are feebly constituted, has a most extensive bearing on the subject of Insanity."

If individuals so predisposed happily live to old age, the dementia of that period of life can

only be warded off by a strict attention to a comparatively spare diet, consisting more of vegetable and farinaceous than animal food, and by discontinuing the use of wine and of all fermented liquors. The mind should also be kept tranquil, and the bowels be regulated by mild aperients.

AFFECTIONS OF THE BRAIN AND NERVOUS SYSTEM.

In no disease can the attention of friends more effectually operate than in *Hypochondriasis*, either in warding it off, or in lessening its miseries. This unfortunate malady arises more frequently from mental than from physical causes. The nature of civilized society tends to augment greatly those cases depending on the first set of causes: they are, indeed, often the result of anxiety respecting schemes of ambition, disappointments in pecuniary speculations, and excessive and long-continued intellectual exertions, combined with sedentary habits. Their frequency, from the last-mentioned cause, has led to the remark that Hypochondriasis may be regarded as the "*morbus literatorum*," the disease of the learned. But men of all ranks, and of every degree in point of intellect, whose occupations are sedentary, from the Lord Chancellor on the woolsack to the cobler in his stall, are equally liable to the disease. The physical

causes are often secondary to moral affections; but, nevertheless, the disease may be truly regarded as an affection of the brain and of the nervous system. It sometimes seems to depend solely on digestive derangements from improper diet; more particularly the abuse of tea, coffee, and other warm diluents. The latter are the most common causes among the lower classes, in which Hypochondriasis more commonly attacks women than men. Whatever may be the primary cause of the disease, as soon as it actually displays itself, there can be no doubt that the brain and the nervous system are more or less affected.

When the disease is actually present, the aid of the physician must be called in; but his prescriptions will be of little avail without the co-operation of the friends or the relatives of the patient.

When the attack has arisen from moral influences,—change of scene, travelling, or some other means capable of arresting the attention, and reversing those influences which have induced the disease, should be resorted to: and, perhaps, much of the benefit which certain mineral springs and watering-places have conferred on hypochondriacs, may be ascribed to arresting, by new objects, the attention, and consequently strengthening the train of ideas; but such influences should be often renewed, in order to prove

permanently successful. When circumstances prevent travelling being resorted to, exercise should be strongly urged; and all the usual studies and habits changed. The clothing should be warm, but light. Indulgence in bed should be prevented, and the patient ought never to be left alone. Nothing is so much to be condemned, in such cases, as ridiculing the whims and the caprices of the patient: the mind may be diverted from them; but ridicule only fixes them more deeply, and favours a tendency to despondency and melancholy.

The great difficulty is to withdraw the attention from the morbid sensations which so wholly absorb it, and to shift it to external objects; but, when that can be accomplished, the medical management of Hypochondriasis becomes easy, and recovery more certain.

Although *Wakefulness* is not strictly regarded as a disease; yet, when it exists, it indicates the absence of health; thence it is an important object, in reference to health, to prevent the habit of it, which, if once established, is most difficult to overcome.

It is difficult to determine the quantity of sleep requisite for health: much depends on age, temperament, constitution, habit, and occupation. Children require more sleep than adults; but between infancy and adult age there are some

differences, which should not be left unnoticed. The infant, for example, requires from fourteen to sixteen hours in the twenty-four to be passed in sleep; the boy generally about ten; the young man or young woman eight, and the adult from four to six. Much, however, depends on habit; but when a person who has been accustomed to enjoy six hours of sleep is reduced to three or two, he then suffers, and is justly regarded as wakeful. Sleep, also, may extend to the usual period, and yet be restless and unsound. When Wakefulness occurs, independent of any specific disease being present, the best means of obviating it is a tepid bath, taken just before bed-time; but when this cannot be obtained, the foot-bath will often answer the same purpose.

There is a variety of nervous irritation, commonly called *Fidgets*, which always more or less cause wakefulness. They are generally accompanied with hot hands and a dry skin, indicative of irritative fever. The Wakefulness, in this case, is best counteracted by placing the hands in cold or in tepid water, for five minutes; or wrapping the end of a towel dipped in cold water round one hand, and allowing the other end to hang over the side of the bed. If the weather be mild, nothing so effectually destroys wakefulness as rising from bed, walking about the room for a few minutes, then returning to bed.

Sensitive persons, who suffer from wakefulness, should refrain from exposing themselves to any causes of excitement for a considerable time before going to bed. They should not drink coffee, nor green tea, at a late hour; for although these substances do not influence the circulation to any morbid extent, yet, they act in a particular manner on the nervous system unfavourable to sleep. In many instances, when Wakefulness has long continued, the physical habits of the sufferer should be changed: thus, instead of dining late, and taking no supper, he should dine early, and sup just before going to bed. The custom, also, of taking purgative pills at bed-time is injurious to sleep; the irritation which they induce, if it does not wholly prevent sleep, at least tends to disturb its tranquillity. Sensitive persons should, in the evening, always endeavour to turn the current of thought from the subject which has been previously engrossing the mind.

The bed of the wakeful should be ample; furnished with a firm, elastic mattress placed over the feather bed; and the thick coverlets, which are usually found on beds, should be thrown aside. The curtains should not be drawn, and every means of admitting air to the bed adopted.

Hysteria is purely a disease of the nervous system: few diseases are more unmanageable, and few reflect so little credit on the physician.

Much may be effected by judicious moral treatment. It is a disease peculiar to the female sex, although some men have been attacked with symptoms closely resembling it. In both sexes the disease may be referred to the brain and nerves, which are affected in a secondary manner.

Hysteria sometimes attacks young women about the age of puberty; but its most common appearance is about that age in which women begin to feel that they are no longer young, and that the chance of any matrimonial alliance is more than doubtful. The moral education of the sex forces them to subdue the most powerful of passions, whilst their sensibility by such an effort is rendered more acute; thence the nervous system is easily excited; and mental causes, which, under other circumstances, would produce little effect upon it, operate powerfully, and excite those convulsive motions which are the most striking features of the hysterical paroxysm.

In every individual predisposed to Hysteria, imitation has a powerful influence: a fit in one person may be productive of fits in twenty, or any number of persons, under certain circumstances: even whole schools have been thus attacked. The representation of agitating passions in the drama has, often, been productive of a similar effect*.

* When Mrs. Siddons first appeared in Edinburgh, hysterics were so common amongst the female part of the audiences, that

Hysterical females, or those of delicate, susceptible nerves, should never be exposed to such exciting causes.

During the paroxysm, care must be taken to prevent the patient from hurting herself; and, as the tongue is apt to be bitten, a napkin should be placed between the teeth. The powers of self-control in the patient should also be endeavoured to be roused. All tight ribbons, or handkerchiefs around the neck, should be loosened. If the convulsions be severe, the face and the chest may be sprinkled with cold water; but dashing a pail-ful of water over these parts should not be attempted, except under the authority of a medical practitioner. Burnt feathers, salts, or the smoke of Assafœtida, may be freely applied to the nostrils. As a preventive measure, when plethora or fulness of habit is present, a diminished quantity of animal food is essential.

In the intervals of the fits, also, the patient should not indulge in soft and warm beds; walking exercise *daily*, or pony exercise, should be strictly enjoined; but carriage exercise is not only useless, it is injurious, by inducing a determination to the head. The tepid shower, or the tepid sea-water bath, and exercise taken after it, is an

young men attended the theatre to carry out the affected; "a service which," Dr. Gregory used to state, "was called carrying off the dead."

excellent mode of strengthening the habit and warding off the fits.

The residence of hysterical females should be high and dry; moisture and warmth are both hurtful: and the enjoyment of the cool and pure air of morning is preferable to all the nervous medicines in the world. Ease and indulgence aggravate the disease. When it can be effected, travelling, or, as it is termed, change of air, by abstracting the attention from the condition of the body, is always useful in warding off Hysteria. The influence of the engagement of the mind, even in times of danger, has been often strikingly illustrative of the benefit resulting from it. In the American* and the French Revolutions, and in the Scotch and Irish Rebellions, ladies, who were suffering under Hysteria, were readily cured by the events of the period. "They forgot," says a writer on the subject, "their hysterical affections." Even reverses of fortune are, sometimes, useful in warding off hysterical attacks. Dr. Frank has remarked that "the wives of merchants become hysterical in flourishing times; but, when reverses come, they have no time to be ill."

When Hysteria has once appeared in young

* Dr. Rush, Medical Inquiries and Observ. vol i

women, nothing is so likely to foster its return as the debilitating habits of fashionable life, in what is called the season in London. Not only does the constitution suffer from hot and crowded rooms, late hours, and stimulating suppers, but the spirits are often broken by wounded pride and disappointed anticipations. By such causes the sensibility is morbidly augmented and Hysteria engendered. These evils are not now confined to the higher circles; they have descended to the middling ranks of society; health is neglected, and happiness sacrificed on the altar of Dissipation.

Epilepsy has been justly regarded as, in many instances, an hereditary disease, and always more or less connected with a scrofulous state of the habit; consequently, when one of a family is affected, we may anticipate the probability of an attack in some other of its members, whether brother or sister. On this account, it is of great importance to be aware of the occasional or exciting causes, so that, by warding them off, the disease may be kept at bay. If the patients be young, indulgence of every description is injurious; every excess in diet is likely to bring on the disease; and nothing more so than the use of malt liquor in boyhood, if the smallest predisposition to the disease exists. High temperatures, prolonged sleep, over-exertion, the repulsion of skin dis-

eases, and some of the exciting passions, such as excessive joy, and anger; too intense application to study or business, watching, inanition from any cause, purging, masturbation, and some depressing passions; for example, great disgust, grief, and terror, are incidental causes of Epilepsy. The sight of any one in the paroxysm of the disease is, also, very likely to induce it in the predisposed. Nothing is more likely to produce an attack of Epilepsy than indulgence in what is termed the pleasures of the table; thence nothing is more essentially requisite to ward it off than the strictest adherence to temperance in diet as far as relates to quantity, and to plainness with regard to cookery and the quality of the food.

Breakfast should not be taken for an hour after the morning walk of the Epileptic: it should consist of a small portion of animal food plainly cooked, and a moderate share of toasted bread, and only one cup of tea or coffee, with much milk. Dinner, which should be taken at two, or at three o'clock, should be moderate in quantity, and consist of mutton, or poultry or game, plainly cooked, with well-boiled vegetables. The drink of the epileptic should be toast-water, or seltzer-water and milk. When the dinner-hour is early, some supper is requisite; but little, if any, animal food should be taken at that time: a small proportion of bread, and a cup of milk and water, are preferable to animal food.

Exercise, especially walking to any extent within the limits of fatigue, is essential for warding off the paroxysms of Epilepsy: but it is preferable to divide the exertion, and not to confine it to one daily effort. A walk of three or four miles every morning before breakfast should be taken, previously fortifying the habit with a slice of toast and a cupful of milk. If the disease have already made its attack, the sufferer should not walk out alone, nor should he be permitted to ride or to drive a carriage: indeed, if he can afford to have a constant attendant, he should never be alone.

Although rest after meals is requisite, yet sleep is hurtful to the epileptic. The epileptic should not indulge in much sleep; consequently, at whatever hour he retires to bed, he should rise early. His sleeping-room should be large, and without a fire. The hair should be closely cut, or shaved; a very light hat worn; and the tepid shower-bath, with friction on the scalp, should be daily used.

When the paroxysm is present, the patient should be laid on his back, and merely prevented from hurting himself, until a medical man can be sent for: but no attempt should be made to make him swallow, unless it shall be ordered by the medical attendant.

Paralysis is another disease in which the treatment of the physician is often of less avail than the management of diet and regimen.

If any form of the disease has occurred, either partial or general, the use of all stimulating aliments, solid or fluid, must be rigidly abstained from, and air and exercise, to the extent to which the patient is capable of taking them, should be daily enjoyed. Mental serenity and relaxation from the cares and vexations of business are indispensable; and much advantage may be derived from a frequent change of scene, such especially as is calculated to withdraw the mind from the feelings of the body. With regard to the paralytic limbs themselves, much good is effected by friction with a flesh-brush or the hair-glove, and sponging with tepid salt and water. Many who have suffered from palsy have long survived the attack; and, by observing proper caution in diet and regimen, have enjoyed for many years a comfortable share of health.

The tendency of *Hydrocephalus*, or *Water in the Brain*, to pass through families, is well known to the profession; and it too often happens that, from ignorance of the premonitory symptoms, the disease advances too far before medical aid is sought for, and means are adopted which, at an earlier period of its progress, might prove successful in warding off the disease. The principal premonitory symptoms are a capricious or defective appetite; the bowels are irregular or torpid; the urine is high-coloured and scanty; the skin

harsh; and the complexion faded and unhealthy. Languor and frequent drowsiness are often present, with disturbed sleep; there are, also, occasional giddiness and headache. The child loses its spirits, and becomes taciturn and grave. When such symptoms display themselves, although the little patient makes no complaint, but, on the contrary, says that nothing ails him when he is closely questioned, yet, immediate medical advice should be resorted to. The disease has already set in, when, in addition to these symptoms, the child has alternate chills and flushing, and walks with a totetring and unsteady gait.

It only remains to be mentioned that every appearance of precocity of intellect in the children of a family in which Hydrocephalus has occurred, should be checked; and parents ought to be fully aware of the hazard of too early, or too long-continued, mental application in such cases. The vigour of the body should be cherished, and the powers of the intellect left at fallow until the constitution is established. The utmost care must be taken to support the tone of the habit by mild nutritious diet, daily exercise, and good air.

Nothing is more important, in children of a hydrocephalic tendency, than the daily examination of the alvine evacuations. When these are pale, slimy, offensive, or in any respect unusual,

the child should be immediately purged; and, if that does not produce relief, medical advice should be instantly obtained. In a family in which three children, successively, died on arriving at a certain age, the next child and all the other children of the family were saved by unremitting attention to this circumstance. In children, also, predisposed to this disease, caps ought not to be worn, either in the night or by day: and the hat should be as light as possible. The vanity of the mother must be sacrificed to the health of the child. The cutting of the teeth should be facilitated by the frequent employment of the scarificator. It should be generally known that the cicatrix formed by this operation is more easily absorbed, to admit the protrusion of the tooth, than the sound gum.

DISEASES OF THE HEAD AND FACE.

Bleeding from the nose depends upon so many circumstances, that, except in young people, it should not be neglected; and medical advice should always be resorted to directly it occurs in adults. To check the flow of the blood, in the meantime, the person should be kept in the erect posture, with the face freely exposed to a stream of cold air, and cold water applied to it. The common practice of putting a large cold key down

the back is serviceable; but the application of ice between the shoulders is better. If the flow of the blood be alarming, the nostrils may be plugged with a piece of lint, or of sponge.

Headach may arise from a variety of causes; consequently the preventive measures vary according to the nature of the attack. When it is of that kind which is dependent on rheumatism, and which affects the muscles, extending often from the forehead to the back, and sometimes involving the temples, the patient should be as much as possible in the open air, and should use the shower-bath every morning. When the form of Headach is accompanied with tenderness of the scalp, and acute pain on pressure, indicating an affection of the immediate covering of the bones, or periosteum,—besides exercise in the open air, the head should be shaved; and washed twice a day, namely, morning and evening, with cold water; and afterwards gently rubbed with a towel for ten or fifteen minutes. The residence should be in a dry, somewhat elevated situation; and quietude of mind should be maintained.

When the pain in the forehead and the back of the head is obtuse, and accompanied with a sensation of torpor and oppression; and when this occurs in weak and irritable persons, besides the necessary medical treatment, which ought not to be neglected, all mental application should be sus-

pended, and cheerful society cultivated; the diet should be moderate, and the utmost attention paid to the state of the bowels. Exercise and the shower-bath are as essential in this as in the other varieties of headach.

Lastly, in what is usually termed *sick* headach, denoted by either acute or dull pain over the left temple, with some tenderness of the part, throbbing, and an incapacity at the time for any mental exertion, the whole arising generally from indigestion, or some error in diet. previous to the occurrence of the headach, it is scarcely necessary to say that prudence in diet, both with respect to quantity and quality, should be observed. Long fasting, excess of wine or any stimulant, protracted sedentary occupations, hurry of business and anxiety, should be known to be exciting causes; and, consequently, as far as possible, avoided by those predisposed to sick headach: in a few words, the duty of the head and the feet should be equally balanced. Proper diet and exercise, cheerfulness of mind, and agreeable social intercourse, will do more to regulate the stomach and bowels, in those predisposed to this form of headach, than any plan of medical treatment which can be suggested. Should it, however, become periodical, as frequently happens, medical advice must then be taken, and the rules laid down strictly observed.

DISEASES OF THE CHEST.

In the convalescence from few diseases are prophylactic measures more necessary than after inflammation of the lungs (*Pneumonia*). Whatever can protect the patient from the exciting causes of the disease is important; thence clothing in flannel next the skin; avoiding exposure to cold; refraining from singing, or from much speaking; and from excesses in diet; at the same time, regulating the exercise so as to insure the daily movement and evacuation of the bowels, must be strictly observed. A wash-leather waistcoat worn over a flannel one has been much recommended; but I am of opinion that a moderately thick knit woollen waistcoat is preferable, as it is a worse conductor of heat. This conducting property is that which aids in maintaining the temperature of the body. These remarks apply to both sexes; and it is scarcely necessary to condemn the bare necks and the exposed chests, which fashion imposes on ladies in evening visiting, in individuals who have had an attack of inflammation of the lungs at any period of life. Sponging the chest every morning with tepid vinegar and water, gradually lowering the temperature, and employing friction with hair gloves or a rough towel, are most advantageous.

Those who are very liable to repeated attacks of the disease, should either confine themselves to the house during the winter and spring, or should change their residence at these periods of the year to a milder climate.

When expense is no object, the best places for such invalids are Madeira, the island of Bermuda, Lisbon, or the Barbary coasts of the Mediterranean: but for those who cannot afford to visit such distant climates, nearly the same advantages will be obtained at Torquay, Penzance, Under Cliff, in the Isle of Wight, or Cove, near Cork.

When spitting of blood (*Hæmoptysis*) occurs, and has been checked, the treatment is not to be regarded as concluded; for it is as requisite to prevent the return of the bleeding as to suppress it when it is present. The medical treatment in this case does not require to be mentioned here; but the prophylactic measures, not of a medical character, are of much importance. These are change of residence to a milder situation, when the hæmorrhage is one of activity of the circulation, or to a colder when it is passive, from debility of the habit. In both, a tranquil state of the mind, with light diet, are essentials.

When *Croup* has attacked any member of a family, the probability is that it may return, and again attack either the same child or some of the

other children: prophylactic or preventive measures are, consequently, of great importance. Such children should be regularly sponged with cold salt water, or vinegar and water, every morning; they should not be overclothed, although flannel next the skin is essential for them in winter and in early spring; and, although they should not be out of doors during east winds, yet, they should not inhabit hot rooms. Their diet should be nutritive, but of a light kind; and no fermented liquors allowed. When the breathing of such children become affected, or when any symptoms of croup present themselves, an emetic should be immediately administered; and the medical attendant instantly sent for, without waiting to see the result of its administration.

The prevalence of *Consumption of the lungs*, and the numberless victims which sink under it, yearly, in this country, render the consideration of measures for its prevention a matter of paramount importance.

Long observation has fully established the hereditary nature of the disease; but, notwithstanding this fact, it would be a visionary idea to suppose that a knowledge of it, widely diffused, would check intermarriages with consumptive families, when we find that even the frightful increase of Insanity from this cause has no influence in checking the evil. It has been sup-

posed that the intermarriages of the consumptive with the healthy would have a tendency to diminish the evil: but, admitting this, it would not altogether remove it; for it is a well-known fact that a consumptive mother is capable of entailing the disease on the children of a healthy father. But, although the efforts to check the extension of Consumption, by recommending an inquiry into the health of the family with whom a matrimonial connexion is about to be formed, is not likely to prove effective, yet, it is a matter of duty to proclaim the truth, "that intermarriages among the collateral branches of the same family, tend more than any thing else to fix, and multiply, and aggravate hereditary predisposition*."

As children must therefore be born with a predisposition to Consumption, our object should be to make the best of such constitutions, and to place the children in circumstances calculated to keep the disease, if possible, at bay. If the mother be of a consumptive habit, a young, healthy nurse should be procured; but the nurse should live in the family, and her habits be regulated, both in reference to her own health and that of the infant. Nothing is more injurious to an infant, thus situated, than an attempt to bring it up by hand; on the contrary, the period of lactation should be ex-

* Dr. Mason Good; Study of Medicine, vol. v. p. 35.

tended to twelve or even to eighteen months. During this period, any additional food, when the nurse is a stout and healthy woman, should not be given to the infant until after four or six teeth have protruded; and, even after this time, the diet should consist almost solely of milk and farinaceous matters. The quantity should never exceed that which the stomach can properly digest, the criterion of which is the healthy condition of the alvine evacuations.

The nurse requires almost as much care as the infant. Her diet should be nutritious, but not stimulant. When a nurse is highly fed, the digestive function suffers; especially if she does not take sufficient daily exercise in the open air, or is permitted to lead the indolent life so commonly followed by that set of pampered females who hire themselves out as wet-nurses.

All infants, especially those predisposed to Consumption, should have the extremities warmly clothed, and not less so the shoulders and the chest. The function of the skin must be kept in a healthy state by baths: which should be tepid when the child is young, and gradually cooled as it advances in age. In summer, indeed, the child should be plunged into cold water, after the body has been well rubbed with a coarse flannel glove. No child predisposed to Consumption should sleep in a bed with curtains, or in small or ill-ventilated

rooms; and in summer, if too young to walk, he should be carried out; or if older, be made to take exercise, in the open air, before breakfast. As he grows, the nature and the quantity of the food should be regulated according to his digestive powers. Animal food should not be given until he has teeth to chew it, and then care must be taken that it is well masticated.

If physical exertion be of the utmost benefit to all children, it is most assential to those of consumptive parents; and, until ten or twelve years of age, no distinction in the kind of exercise should be made in reference to sex. The same unrestrained freedom in play admitted to boys should be encouraged in young girls. In both sexes, at this time of life, education should not be pushed, nor the mind worked even to the extent of its powers. In consumptive children, the intellect is often precocious; but, on this account, it should be restrained.

The sedentary nature of the education of young girls is peculiarly injurious: the extremities are chilled, congestions take place in the chest, and the seeds of Consumption are sown, when no hereditary predisposition exists. The time devoted to accomplishments, especially music, in the present system of female education, is too great; and every excess in this produces a corresponding deficiency in that exercise which is

not only conducive but essential for health. But, besides the influence of over-study in abridging the necessary bodily exercise in young females, there are circumstances connected with dress, equally adverse to the freedom of that degree of muscular action which is so requisite to preserve health and ward off Consumption. Stays, tight lacing, and a constrained, stiff, erect position, are all alike injurious; and the consequences are sufficiently obvious: the individuals, instead of acquiring vigour, and firmness of body, at the age of puberty, are pale and thin; the pulse is feeble, the tongue furred; the bowels are torpid or irregular in their action; the skin is dry and harsh, and the breathing hurried and embarrassed on the least exertion. In such a condition of habit, if the slightest predisposition exists, the disease may be lighted up by exposure to cold, or over-exertion, or any of the other well-known exciting causes. Such are the most prominent circumstances to be observed in the physical education of those predisposed to Consumption: attention to them, and avoiding those circumstances likely to awaken latent tubercles into an active state, are the only means of preventing the disease.

It has erroneously been supposed that public speaking, or reading aloud, is injurious to those who have a tendency to Consumption; on the contrary, by giving movement and, as it were, exer-

cise to the lungs, it tends to ward off the disease. It is only after Consumption has, to a certain degree, produced organic changes on the substance of the lungs, that speaking or recitation proves hurtful.

The object of this volume, as I have already more than once stated, is not to enable its readers to act as their own physicians, when disease is actually present; but, in the case of Consumption, I feel authorized to break through this intention, to a certain extent, and to recommend the frequent use of a sulphate of zinc emetic*, in the morning, whenever the disease displays itself, however slight the symptoms may be.

As it is not intended to point out the distinctions between diseases resembling one another, the characteristics which separate *Palpitation* connected with a highly nervous state of the habit, and *Palpitation* depending on organic disease, must be left to the physician. When the former is the cause, the medicinal treatment will be greatly aided by the shower-bath, friction, mild unstimulating diet, cheerful society, and change of scene: when the heart is suffering from some organic affection, the quantity of food should be greatly diminished; and it should be of the least stimulating description,

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* The dose for a man is half a drachm; for a woman, scruple; for children under sixteen years of age, fourteen grains

chiefly vegetable and farinaceous. In the last case, after the Palpitation is overcome, all corporeal exertion beyond the most moderate limit should be avoided.

Although *affections of the Spine* are regarded as purely of a surgical description, yet they are the consequence of general disease; and when they occur, they often are the predisposing causes of affections of the chest. Whenever the smallest indication of their presence is obvious, the strictest attention should be given to the diet and regimen of the patient, and every step taken to improve the general health and augment the tone of the habit. Friction, gentle exercise, sea-bathing, and the tepid or the cold shower-bath, according to the nature of the peculiar case, are the means most likely to prove effectual to ward off the attack. All mechanical props and supports are hurtful; and although the patient should lie down, when at home, yet, daily exercise should not be neglected. Young girls ought not to stand long, nor be forced to sit long at a time, at the pianoforte. Whatever can augment strength, must be adopted.

AFFECTIONS OF THE DIGESTIVE ORGANS.

When that state of the digestive organs, which is termed *Dyspepsia*, has once occurred, it

is most likely to display itself again, if the exciting causes be not avoided; namely, indolence, much indulgence in sleep, sedentary occupations, hot rooms, too frequent use of the warm bath, and the habitual use of narcotics, spirits, and malt liquor. The period of taking food, in those who have suffered from, or are predisposed to, Dyspepsia, should be regular, and the intervals between the meals not too long protracted. Constant attention to keep the bowels regular is essential.

But, to ward off Dyspepsia, the state of the mind is of as much importance as that of the body. It should be kept tranquil; for nothing is so likely to bring on a recurrence of the disease as a fit of passion, or even intense study, especially soon after a meal. The influence of the mind on the digestive organs, indeed, has been generally observed: Shakespeare has taken advantage of the fact when he makes King Henry the Eighth, in giving Wolsey the schedule of his ill-gotten wealth, express himself thus—

> ——— Read o'er this (*giving him papers*),
> And after, this; and then to breakfast, with
> What appetite you may.

Those predisposed to Dyspepsia should avoid exposure to a cold and moist atmosphere.

Some details with respect to food, as a pre-

ventive of indigestion, will be found in the chapter on diet: it is only necessary to mention here that the quantity of the food should be proportioned to the power of digestion, even when the appetite is craving. In certain conditions of the stomach, pain, flatulence, and general uneasiness, almost always succeed a meal. As it is not my intention to lay down rules for curing the disease, it is only necessary to state here, that nothing tends more to produce a morbid condition of the stomach than over-stimulant diet. Nearly the same effect results from a deficiency of food, and protracted fasting. Dyspepsia has also been induced by the mistaken idea that vegetable food is unsuited to a weak stomach, and the consequent exclusive use of an animal diet. This error has often led to more serious diseases of the stomach than Dyspepsia can ever engender. If a mixed diet cannot be borne, the stomach must be regarded in that condition which demands medical attention.

Exercise is not less important than attention to diet in warding off Dyspepsia: but it must be of that kind of exercise in which every part of the body shares, equal to the strength of the individual, and continued long enough to excite perspiration, although not to cause fatigue. It should be taken before breakfast and before dinner: and, whatever may be its kind, it should be out of doors, and connected with some pursuit which can interest

the mind, such as botany, natural history, gardening, hunting, cricket, or any other amusement. It should always precede a meal; but a sufficient time should be allowed to intervene, between it and the meal, to take off any sensation of fatigue before eating. In winter, when the morning walk cannot be taken, friction with a hair-glove over the body should be substituted, exercising especially the arms. The studious should relax their application to study for some time after a meal. The hours of sleep should be diminished, and the patient should rise in the morning the moment he awakes, and sponge the body with cold vinegar and water, or use the shower-bath.

Whatever may be the form which *Gout* assumes, it is always more or less connected with disease of the digestive organs; and, assuredly, in no disease is the preventive management so essential and productive of so much benefit. The primary object, even should there exist a predisposition to the disease, is to withhold all redundance of nutrition; but at the same time to sustain the vigour of the habit, and to avert as much as possible all tendency to inflammatory excitement. This assuredly is the best method of correcting the strong hereditary predisposition which often exists*. Too spare diet, and ex-

* Dr. James Gregory was hereditarily predisposed to gout; his father, his grandfather, and a long line of ancestors, all celebrated

cessive or fatiguing bodily exercise, are not only unnecessary, but they often prove as injurious as the opposite extreme. The object is to prevent that condition of the habit which is termed plethora, and to obviate it as soon as it displays itself. To prevent plethora, every tendency to fulness from diet must be shunned: animal food should be moderately used, and all fermented liquors most sparingly indulged in, if at all allowed. The proportion of both must be moderate, in the ratio of the bodily exertion, or of the exercise daily taken. No error is so hurtful as the idea that wine, in gouty subjects, is necessary to keep gout from the stomach. As wisely might a man set fire to the floor of his room to warm himself. Exercise in the open air should be daily taken, in sufficient quantity to promote both the appropriation of the nutritive matter, and the excretion of redundant matters, as well as to maintain the due balance of the circulation. When these are attended to, little assistance is required from art; both the skin and the bowels will spontaneously perform their functions. No evils are equal to indolence and indulgence of any kind in those predisposed to gout. But, although this doctrine is that of common sense, of science and experience, yet it is not that which is palatable to the

men, having died of the disease under fifty years of age. By strict attention to diet and exercise, Dr. Gregory suffered only one attack, and lived to a good old age.

luxurious, the victims of gout: their maxim is to balance the pleasures of the table with the prescriptions of the physician. The principles, however, to be attended to, are, light diet, active bowels, exercise, and an open skin.

Rheumatism is improperly regarded as an inflammatory affection of the joints; the pains and inflammation there stand in the same degree to the disease as the pustules or the scarlet eruption, in small-pox and in scarlet fever, do to these diseases. In Rheumatism, the pains are merely the symptoms of a general disease: it is to this therefore that the attention is to be turned. There is, in every instance, a condition of plethora which constitutes the predisposition to Rheumatism, and which renders cold or exposure to currents of air capable of producing the disease. With the medical treatment it is not my intention to interfere; but with respect to the prevention of the attack, or the warding off its return after it has been relieved, we would lay down the following rules:—

1. It is of the utmost importance to commence the renewal of the movements of the affected joints as early as possible after the pain is allayed. Their strength and flexibility depend solely on the early renewal of motion: on the contrary, rest tends to retard the health of the affected parts, which remain painful and stiff, and resist every movement which is attempted: the more motion

is cultivated, the sooner are the limbs restored to their natural functions. Their exercise recovers the balance of the circulation, prevents effusion, aids absorption, and consequently favours flexibility. If rest be indulged, from the dread of pain, the joints and the parts surrounding them become rigid, contracted, and permanently impaired, whilst the muscles waste and lose their power of contracting.

2. Friction, and the daily use of the salt-water shower-bath*, have a powerful effect in warding off the returns of the disease.

3. Flannel next the skin is essential; but it should not be worn during the summer months. It ought not, however, to be too soon left off, nor too late resumed.

4. Acids, saccharine matters, pastry, and whatever can contribute to a dyspeptic state of the digestive organs, should be avoided: and, unless the strength be greatly reduced, water should be the only beverage.

When *vomiting of blood* has once occurred in any person, it is very apt to recur, sometimes spontaneously, sometimes on exposure to exciting causes; such, for example, as violent mental emotions, whether of a depressing or an exciting kind; the sudden stoppage of some customary

* The salt-water shower-bath is made by the addition of a quart of salt brine to three pailsful of water.

evacuation, such as blood from piles; or, in females, the sudden suppression of the monthly uterine secretion, from exposure to cold or other causes. It is, therefore, of much importance for individuals subject to this species of hæmorrhage to maintain as perfect a state of mental tranquillity as possible, to keep the bowels open by exercise; and, if purgatives be required, by mild aperients, avoiding drastic cathartics and all mechanical or other irritants.

DISEASES OF THE ALIMENTARY CANAL.

Constipation of the bowels arises from a great variety of causes, which requires to be investigated and well understood before means can be taken to obviate it. It is not my intention to enter upon the consideration of these, but to point out the importance of regular habits in remedying mere functional constipation. The periodical tendency to some conditions of the habit, and more especially to the evacuation of the bowels, is a well-established fact; this should, therefore, be taken advantage of in constipation, by making an attempt to relieve the bowels always at the same hour daily. This habit, when acquired, seldom fails in effecting the object intended to be accomplished: but it is greatly aided by regular walking exercise before breakfast, supposing the period for eva-

cuation to be after that meal. Nothing tends more to promote constipation than sedentary occupations, especially those in which the powers of the mind are much engaged; thence we find it a common attendant on the studious and on literary men. A small tumbler of cold water, drunk immediately on rising in the morning, and followed by friction over the abdomen, when exercise cannot be taken, has a powerful influence in promoting the morning evacuation.

Whatever weakens the power of digestion has a tendency to encourage the generation of intestinal *Worms*. Without attempting to interfere with the medical treatment, which must be varied according to the description of worm which is present, I am desirous to enforce the necessity of invigorating the body, as the best means of preventing their formation. The diet should be of easy digestion, and in quantity not more than can be readily assimilated; and both digestion and assimilation should be promoted by regular exercise.

The most common species of worm is the small thread-worm, or *Ascarides*, which chiefly infests the lowest bowel. They are so amazingly prolific, that they are regenerated as rapidly as they can be expelled. Their presence is productive merely of inconvenience; thence they are not often objects of regular medical treatment, but are managed by domestic remedies. For the

purpose of expelling Ascarides, purgatives are rarely efficacious; and their repetition tends to augment the evil, by weakening the bowels. Whether regularly or domestically treated, the objects of the treatment are,

1st. To expel the worms already present in the bowels:

2ndly. To prevent their regeneration.

For fulfilling the first intention, I have found nothing so beneficial as the introduction of a tallow candle into the gut, and administering, in twelve or fifteen minutes afterwards, a powder consisting of four or five grains of Calomel, ten of Sulphate of potassa, and fifteen of powder of Jalap. The second indication is answered by taking from ten to twenty minims of tincture of Muriate of iron in a glass of water, three times a day. The use of the tallow candle should be resumed at intervals of four days, until the whole of the worms are expelled. The tonic influence of the chalybeate tincture is augmented by daily friction over the surface of the bowels with the hair gloves.

In children of a delicate frame of body, and with a tendency to a tumid belly, I have witnessed much advantage from the administration of a scruple of culinary salt in half a glass of port-wine, at noon, daily, when the stomach is empty.

Piles (Hæmorrhoids) may be regarded in two points of view, namely—

1. As a simple painful affection, dependent on vascular tumours of the lowest intestine.

2. As a flow of blood from similar tumours, either within or external to the gut.

Either form of the disease, although it rarely proves fatal, yet is so troublesome as to annoy and to engross much of the attention during life.

The causes of both forms of Piles should be understood. There may be an hereditary predisposition; but more frequently the disease is the result of self-indulgence, causing obesity; or of sedentary occupations producing habitual costiveness; or of the indiscreet employment of irritating purgatives. From any of these causes, there results a preternatural determination of blood to the lowest bowel, which filling and enlarging, beyond their natural diameter, those veins which are named hæmorrhoidal, they swell, and thus form the tumours which constitute Piles. When the minute vessels composing the tumours are over turgid, the blood either oozes from their coats, or these give way, and then "bleeding Piles" are produced. The flow of the blood in such cases relieves the dull pain of the back and loins, the headach, and the deranged condition of the digestive organs, which always precede the bleeding Piles, and which point out the impropriety of incautiously stopping the bleeding. A stoppage of the flow of blood, particularly if it has been periodical, demands a

change in diet, and the observation of the strictest temperance. Active exercise should be taken, and the bowels opened daily by mild laxatives*. Many trifling circumstances afford much relief in these cases: thus, for example, the sufferer should sleep upon a firm mattress; sit upon a hard chair, and have the seat of the water-closet inclined forwards instead of being horizontal. When the pain is very severe, or the hæmorrhage is profuse, then medical aid must be obtained.

AFFECTIONS OF THE LIVER.

M. Portal, a celebrated French physician, has observed that great eaters have invariably diseased and enlarged livers: but in no organ of the body does disease make its appearance in such varied forms. Thus the liver may be *enlarged;* or it may be *wasted* (atrophied); or *softened;* or its structure changed into various forms of *tubercles;* or partially transformed into *fatty* matter; or *hydatids* may form in it; or *abscess;* or it may become *cancerous;* or even partially *ossified;* or the bile which it secretes may be pent up in it from obstructions by *gall-stones*, or by *tumours*, or other causes. This list of affections of the

* See Supplement.

liver may all, more or less, depend upon irregularities of diet and of life; consequently, they are mentioned to shew the necessity of temperance and regularity of diet and regimen. When an affection of the liver is subdued, both the patient and his friends should be aware that its return is favoured by any error in diet, or in clothing. The latter in particular should be warm; and as nothing tends more than moderate warmth to maintain the natural action of the skin and that of the liver, flannel should be worn next the skin, except in the very middle of summer.

In no diseased affections is it so important to obtain immediate and good medical advice as in affections of the liver. In the greater number of the diseases to which that organ is liable, much may be effected to ensure recovery, if proper and active measures be early resorted to; but, when change of structure has actually commenced, the physician can do little more than look on, and lament the inefficiency of his science.

AFFECTIONS OF THE SKIN.

It is inconsistent with the object of this volume to notice those affections of the skin which require medical management: but there are a few forms of skin diseases, namely, the *Intertrigo*, or chafing of infants; *Itch;* and the pruriginous

diseases of old age; which, as they require chiefly domestic management, should be noticed.

The first (*Intertrigo*) occurs most commonly in fat children, in the foldings of the skin, and in parts submitted to the friction of the clothes. In such instances, when the health of the infant is good, nothing but cleanliness is requisite: but, when the digestive organs are in fault, as the discharge is more or less acrid, the part, besides being cleaned with tepid water and soap twice a day, should be dusted with a powder composed of two parts of starch and one part of white oxide of zinc; and the medical attendant of the family ought to be consulted, to remedy the condition of the stomach, and to regulate the diet of the child.

When Itch (*Scabies*) appears in a family, the individual should be separated from the rest of the household, and treated with Sulphur, both internally administered and externally applied. For the former purpose, an ounce of Sulphur may be mixed in an ounce of treacle, and a tea-spoonful given to the patient night and morning; and for the latter, an ounce of Sulphur, a drachm of Sulphuric acid, and two ounces of Lard, should be made into an ointment, and one-fourth of it rubbed upon the body, night and morning, until every trace of the eruption has disappeared.

The *pruriginous diseases* of old age are, in

great measure, incurable; but much comfort may be derived from attention to a variety of circumstances altogether within the power of the patient. In these affections there is no visible eruption; but the itching is sometimes almost insupportable. In order to abate this torment, the sufferer should avoid heat of every kind, and sleep on a firm mattress. He must refrain from scratching and friction of every kind; and from the use of aromatics, seasoned food, coffee, wine and fermented liquors. Some comfort may be obtained by sponging the spots which itch with very hot water, or with a sedative lotion containing Hydrocyanic acid*.

FAINTING.

In concluding these remarks on general disease, we may hazard a few hints on the recovery of persons from *Fainting*. In every instance the recumbent position of the body is to be preferred, and is the most favourable for recovery. Cool air, and exposing the chest to its influence; sprinkling cold water on the face; and arousing the consciousness by sudden loud noises, are the next best aids. Ammonia is usually applied to the nostrils; but this requires more caution than

* See Supplement.

is generally supposed; for instances have occurred in which an over-zeal to recover the fainting person by this means has induced inflammation of the mucous membrane of the nostrils, and even of the gullet, to an alarming degree. If the power of swallowing remains, small doses of Ether, tincture of Lavender, aromatic spirit of Ammonia, and Wine and Brandy, in water, almost always prove serviceable. If fainting accompany floodings or bleeding at the nose, or spitting of blood, it should not be hastily checked, as it is to be regarded as a curative effort of nature to arrest the bleeding: and in such cases nothing is more injurious than the employment of stimulants.

MISCARRIAGE.

In few cases are preventive measures more necessary than in the disposition, which many females acquire, to miscarry at a certain period of pregnancy. This susceptibility depends greatly on the condition of the nervous system; thence, excitement of every kind, moral or physical, must be carefully avoided. On this account, much company, dancing, the theatre, hot rooms, and late hours, prove dangerous: and rest and quiet should be strictly enforced. If, towards the period at which the miscarriage has formerly taken place, the sleep is imperfect, and the nights are rest-

less, an occasional anodyne will be required; but the necessity for it should be determined by a medical man. As soon as that period approaches, the patient should either be confined to bed, or to her sofa: every kind of stimulant food or beverage should be avoided; and both body and mind maintained in as complete a state of quiescence as possible. Even after the period of risk is passed, much caution is still requisite; and no freedom, in reference to exercise or bodily exertion, should be permitted, until the seventh month of gestation is over. After this time, more exercise may be taken and continued daily, within the limits of fatigue, until the labour commences. Much attention is also required to the condition of the bowels, which should be daily relieved, but not purged. The more regular the excercise; the cooler the habit of body; and (with firm reliance on Providence) the more confident the anticipation of an easy delivery and a favorable rising; the more likely are these desirable events to happen.

PROGNOSTICS.

In every disease the medical attendant is naturally called upon to deliver his opinion of the degree of danger which hangs over the patient: thence, it is unnecessary to enter into any minute

details on the subject of Prognostics. But, as in many diseases changes occur, in the absence of the practitioner, which ought instantly to be examined into, in order that the danger likely to accrue from them may be averted, it is important that the friends and ordinary attendants of the sick should be aware of their presence, so as to obtain the immediate assistance of the medical attendant. Were this information, also, more generally diffused, many unnecessary visits would be saved to the physician, and much unfounded suspicion of danger prevented from distressing and torturing the minds of the friends of the sick.

In Fevers, *delirium* alone should excite *no* alarm, unless it be very high, or of the low, muttering, incoherent kind. In Jaundice and in diseases of the chest, it is alarming; and, in the latter stages of pulmonary Consumption, its presence always indicates the approach of death.

Great *confusion of thought, loss of recollection* of the most recent occurrences, a restless, wandering eye, and a correspondent vacancy or confusion of countenance, are always to be dreaded in fevers and in diseases of the brain. An expression of *great anxiety* is equally alarming in all acute diseases; and a presentiment of death is still more to be dreaded.

Squinting in affections of the head ought to be particularly noticed, and mentioned to the

attending practitioner; and the same remark applies to a greatly *contracted*, or a *dilated*, or an *immoveable* condition of the pupil of the eye; or the turning up of the pupils under the upper eyelids.

Deafness is *not* an unfavourable occurrence in continued Fever; but a sudden attack of headach in pulmonary diseases ought instantly to be mentioned to the physician.

The *sudden disappearance of pain* in inflammatory affections of the bowels is always to be dreaded; but it does not in every instance portend the existence of mortification.

Rigors invariably excite alarm; but they are only dangerous in chronic internal diseases, in which they often indicate the formation of pus, or the existence of suppuration.

The *position of the patient* as he lies in bed, especially in Fevers, is of much importance. Constantly lying on his back, with a tendency to sink to the bottom of the bed; a propensity to keep the arms and the feet out of bed, and to uncover the trunk; or to pick the bed-clothes; tremors; twitching of the tendons; grinding of the teeth, and sleeping with the eye-lids half open, and the white of the eyes only seen; are all justly regarded as symptoms of great danger.

Fainting (*Syncope*) is to be considered alarming in diseases of the heart, or during profuse

bleeding from the nose, or from any other part: *deep sighing*, also, under such circumstances, is most unfavourable, and often indicates rapid dissolution.

Hiccup, in the advanced stages of either acute or chronic diseases, is invariably alarming.

Difficulty of swallowing, also, in the advanced stages of Fever, Palsy, and affections of the head, always indicates extreme danger; *vomiting*, on the contrary, is not unfavourable, unless it be very severe and protracted; but, if the ejected matters be putrid, or feculent, then the vomiting is always to be dreaded.

Involuntary diarrhœa is, under every circumstance, an unfavourable event, when it occurs either in Fevers, or in the termination of chronic diseases; and the passing of involuntary stools, when scarcely any diarrhœa exists, is equally to be dreaded.

Retention of the urine, as well as its *involuntary discharge*, is always an unfavourable symptom.

Purple spots appearing on the skin, *livid lips* and *cheeks*, *oozing of blood*, *sudden flushings* followed by pallor, are unfavourable symptoms; and the appearance of œdematous swellings of the legs and skin, in the last stage of chronic organic diseases, always indicates approaching death.

Great and continued, or progressing *emaciation*

in chronic diseases, and what is termed the *facies Hippocratica*, are to be dreaded.

Excoriations on the parts on which the body rests,—for example, the haunches or the lower part of the back,—especially if these become livid and sloughy, always indicate extreme danger.

When *pregnancy* occurs in a woman labouring under Consumption, the disease is arrested, until after delivery, as if Providence threw a shield over the mother for the safety of the offspring; but, as soon as the confinement is over, the malady proceeds more rapidly than before.

When a child, instead of rallying after any acute disease, becomes emaciated, and the belly is large and tympanitic, there is always much danger.

Ovarian disease, or, as it is usually termed, *ovarian Dropsy*, has hitherto proved incurable; but it is relieved by tapping; and, if the powers of life be sustained by proper food, and carriage exercise in the open air; and if all medicines be let alone, except such as are required to regulate the bowels, life may be sustained for many years.

All diseases, not involving organic changes, are, with a few exceptions, more or less under the control of medicines, and are consequently curable. But some diseases, in which no organic changes have been discovered, are nevertheless incurable. This is the case with spasmodic Asthma, which has rarely been cured.

It is true that functional disturbances are not unfrequently associated with organic diseases; but, under such circumstances, it is the province of the attending physician to point out to the friends of the patient the greater or the less degree of danger, in these complications.

INQUIRIES

CONCERNING

THE SICK-ROOM,

&c.

CHAPTER I.

CHOICE AND FURNISHING OF THE SICK-ROOM, WHEN THE DISEASE IS LIKELY TO BE PROTRACTED, OR IS OF A PECULIAR DESCRIPTION:—VENTILATION, TEMPERATURE, CLEANLINESS, AND DARKENING OF THE APARTMENT. QUALIFICATIONS TO BE LOOKED FOR IN THE CHOICE OF A NURSE.

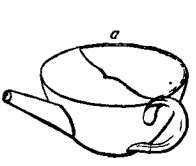
In every case of disease, however slight its nature, the sleeping apartment of the sick should be airy and well ventilated: but, when Providence visits any member of a family with disease of a serious and protracted description, all other considerations giving way to the necessity of the case, an apartment should be chosen and arranged in a special manner for the reception of the invalid.

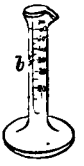
It should be one calculated to administer to his temporary comfort, as well as to aid his recovery. It is not time, when the alarm is sounded and the danger is already urgent, to think of such arrangements; forethought must be put in requisition; every want anticipated; and whatever is likely to be required not only provided, but so arranged that it can be instantly found when it is needed.

The sick-room should be large, lofty, and, if possible, with a northern aspect, in order to avoid the heat of the mid-day or the afternoon sun: the windows should be capable of being opened by drawing down the uppermost sash; an advantage, however, which cannot always be obtained, as this mode of opening windows is too generally neglected in the construction of modern houses. No room, however large, should be used as a sick-room, unless it has a chimney; but neither the chimney-board nor the soot-board of the apartment should be put up, even in summer. No article of unnecessary furniture should be permitted to remain in the room; and that which is left in it should be of a description fitted to administer to the convenience of the invalid.

Two tables are sufficient. One of them may be small, to stand near the bed, for the immediate use of the patient: namely, to hold his jug of barley-water, toast-water, or other beverage;—a small tea-pot, or, what is preferable, a half-covered cup with

a spout (*a*), to enable fluids to be administered





without raising the sufferer in bed;—his medicines for the day;—a minim measure (*b*)*;—and any other thing which he may require.

The minim measure is requisite, owing to a drop being an indefinite quantity, and modified by the form and thickness of the lip of the bottle; and medicines, on that account, being now seldom prescribed to be taken in drops.

The other table should be large, for the accommodation of medicines not in immediate use, and also for spare glasses, jugs, cups, spoons, both large and small, and other necessary articles, among which should be a graduated basin for ascertaining the quantity of blood ordered to be abstracted in bleeding; and a large bottle of filtered water. This table should have one drawer, at least, which ought to be furnished with the following articles—broad tape, such as is required in blood-letting, and also some narrow tape; two or three half-worn ribands; a bundle of old, soft linen; a sponge; a few ounces of lint; scissars, large and small; a bone spatula for spreading ointment; a couple of rolls

* These measures are sold in every chemist's shop.

of calico bandage, two inches broad; a pin-cushion well supplied with pins; needles and thread; and about half a yard of simple adhesive plaster.

Every medical practitioner has daily to lament that implements for bleeding are never at hand when they are required: he has to wait until the whole house is run over, and every drawer ransacked, to procure tape, or ribands, and pledgets; often, indeed, until the servant is despatched to purchase them at the nearest haberdasher's shop. His time is thus unnecessarily encroached upon; and the patient is injured by the irritability of temper which the delay causes.

A Sofa, if the apartment be sufficiently large to admit of it, is a very important piece of furniture in the sick-room; the erect or the sitting posture being injurious in many diseases; and, when the sick-bed requires to be made, it affords also the means of removing the patient from the bed with as little inconvenience to him as possible.

If there is not space for a Sofa, there should be an invalid or reclining chair; and, when circumstances will permit, it should be of that kind which is susceptible of a variety of changes, so as to vary, at pleasure, the position of the patient. There should not be more than two other chairs in the room. If there is a looking-glass in the apartment, in a situation which admits of the patient seeing himself in it as he lies in bed, its

place should be changed, or it should be altogether removed from the room. A chest of drawers is essential; but none of the drawers should be appropriated for the reception of dirty linen, which ought never, after being changed, to be allowed to remain a moment in the sick-room. One drawer should be especially allotted for towels, of which an amply supply is, in every case, necessary. The washing-stand will require two additional basins; an additional water bottle and a tumbler; and a very large, supernumerary water-jug, under the table, always full of water.

There should be no kettle, nor any implement of cooking, in the sick-room; even in winter, and when a fire is required. In general, a fire in the sick-room is only necessary for the comfort of the attendants; but nurses too frequently take advantage of it to boil the water for their own tea, and to prepare the slops for the invalid; a custom which cannot be too severely reprobated. The lamp termed a *Night-nurse* (*c*), consisting of a

water-bath (1) placed over a lamp (2) in a wire-worked cylinder; a small tin kettle (3) which enters the top of the cylinder; and a covered earthen-ware vessel (4) which fits into the water-bath; is useful for keeping fluids warm, and at the same time for preserving a light in the room, when an unshaded Lamp or a Candle would be hurtful.

A Carpet, which covers the whole of the floor, has often been regarded as a disadvantage in a sick-room: but, in general, it is an advantage; as it prevents the floor from being wetted in cleaning the room; which, in many cases of disease, is extremely injurious: whilst a carpet can be regularly cleaned by sprinkling moist tea leaves over it before it is swept. When the room is not wholly carpeted, the boards should be swept only, but never washed. An invalid may as well sleep in a swamp, as in a room the floor of which is frequently washed. The slow evaporation from the boards operates in the same manner upon the surface of the body as exposure to damp or foggy weather; and is productive of rheumatism.

In continued Fevers, the sense of hearing is often so morbidly acute, that ordinary sounds become causes of pain. In this case, if the floor of the sick-room be not wholly carpeted, every precaution to lessen the intensity of sound should be taken. One of the most effectual is to have a couple or more pairs of large list-shoes out-

side of the door, into which the feet, even of the doctors, may be advantageously thrust, when their shoes make a creaking noise, or when the visitor or the nurse treads with a heavy foot. On the same account, when more than one nurse or attendant is required to be in the room at the same time, no conversation, although it may be carried on in a whisper, should be permitted. Whispering, indeed, is apt to excite delirium, and to augment it when it is already present.

The French beds, without curtains, are those best adapted for the sick-room. When four-posted bedsteads, surrounded by curtains, were more in use than at the present time, the mischief arising from excluding the free air, by drawing the curtains close around the bed, was frequent and serious. In every case of disease, indeed, especially when it is attended by fever, the patient should be kept cool, and the most perfect freedom be given to the breathing: the mattress should be over the feather bed, and the pillows be firm and elastic. The Marseilles coverlets, which are placed on beds during the day, and often retained at night, are heavy, and calculated rather to increase than to subdue Fever; consequently they should be wholly discarded from the sick-bed. Indeed, when the disease is fever, and when it is accompanied with great restlessness owing to the evening exacerbation, if the bed-room be sufficiently

large, two beds should be placed in it; or, if two adjoining bed-chambers can be obtained, a bed ought to be put up in each, so that the patient can be moved from the one bed to the other every morning and evening. This both aids sleep, and it also tends greatly to ensure personal cleanliness to the patient. The bed-clothes of the bed from which the patient is moved should, on his removal, be immediately turned down and fully exposed to the air; a precaution which will set aside the necessity of so frequent a change of linen as would be, otherwise, required. When there is only one bed, and when the disease is Fever, unless the patient is too ill to permit his being moved, the sheets which have been used at night should be replaced by others in the morning, and hung up in the free air during the day, to be again used at night. But, when it can conveniently be done, in every case of continued Fever, especially if it be of an infectious kind, the sheets should be changed once in twenty-four hours; a practice which is likely to prevent the fomes of infection from being communicated to the blankets, or to any of the furniture of the room.

In cases where the water-bed is required, the nurse should be aware of its tendency to sink under the pressure of the head and shoulders, and to throw the feet upwards. This is one of the disadvantages of these beds, which may be counter-

acted, however, by the use of an air-pillow, or some other means fitted to support the shoulders.

Ventilation is always of primary importance; and that period, happily, is gone by, in which air was carefully excluded from the chambers of the sick, even when they were suffering under febrile diseases. I recollect, when a student at Edinburgh, the custom of almost hermetically sealing the chambers of patients in fever was so prevalent among the lower classes of society, and even, in some instances, among the middling classes, that Dr. James Gregory used to mention, in his lectures, that, as no argument was of avail in procuring the admission of fresh air into the sick-rooms of the poor, he generally pushed his cane through the panes of the windows. This, however, was not always adequate to ensure the intended effect, as he often found the broken panes pasted over with paper on his next visit. Nothing can demonstrate so strikingly the importance of ventilation to the sick as the benefit which has often resulted from removing poor patients from their own houses to hospitals, arising chiefly from their exposure to the open air.

Ventilation is particularly demanded in those fevers in which miliary eruptions display themselves. Under no circumstances, it is scarcely necessary to remark, is the ventilation of the sick-room so essential as in febrile diseases of an *infectious*

kind*. It may, however, be consolatory to those whose duty it is to attend such cases, to know, that infection, communicated through the air†, rarely extends above a few feet from the body of the patient; and, even in the most malignant diseases, with the exception of confluent Small-pox and Scarlet fever of the worst kind, its influence does not exceed a few yards, if the room be well ventilated. On the contrary, if ventilation be neglected, the power of infection becomes greatly augmented from its concentration in confined and quiescent air: it even settles upon the clothes of the attendants and the furniture of the room; and these imbibe it most readily when their texture is wool, fur, or cotton, or any loose or downy substance capable of receiving and readily retaining the air. Smooth and polished surfaces do not easily receive or retain infectious matter; consequently, the nurses and attendants, in cases of infectious diseases, should have glazed gowns, and aprons of oiled silk.

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* The diseases usually regarded as infectious are typhus fever, plague, child-bed (puerperal) fever, influenza, hooping-cough, consumption in its latter stages, small pox, chicken pox, measles, scarlet fever, erysipelas.

† The term 'through the air' is used to distinguish *infectious* from *contagious* diseases. The latter, which are communicated only by contact, are itch, sivvens, venereal diseases, yaws, scald head, ringworm of the head, and Egyptian ophthalmia.

In no infectious diseases are these rules more essentially necessary than in Small-pox and Scarlet fever. It is well known that, if the bed-clothes of a patient labouring under either Scarlet fever or Small-pox be closely folded up, they will retain the infectious matter, and communicate the disease at a great distance of time; but the influence of free ventilation is so great, that medical practitioners who are attending small-pox patients, and who go from them into the open air, do not spread the disease. Indeed all infection is weakened by dilution with air. The danger of infection is augmented, if, along with bad ventilation, the atmosphere of the room be moist from any cause.

It is further consolatory to know that the infectious matter, even of the most virulent description, is not poisonous to every one who is placed within the sphere of its influence. A predisposition of the body to receive the infection must exist before it can be communicated; a condition which is augmented by fatigue and watching, defective nourishment, mental depression, or any thing which can lower the vital powers. The necessity, therefore, of maintaining these by attention to rest, a sufficient quantity of good and generous diet, and cheerfulness of mind, need not be insisted upon.

In every case of infectious disease, the attendants, even in the best-ventilated rooms, should stand on the windward, or that side of the sick-bed

from which the current of air comes; as, by neglect of this rule, and by standing in the current which has passed over the patient, the infectious exhalations are blown upon them in a direct stream from the body of the patient. The attendants should never lean over the sick, nor should they receive their breath. The health also of the nurses should always be supported by a nutritious and generous diet; but not by brandy nor any other spirit.

The term infection, in its most extensive signification, implies some deleterious matter, originating from any source, and transmitted through the air, which is capable of causing diseases in the human body. When this matter is emanated from the diseased bodies of men, the term is frequently regarded as synonymous with *contagion;* but, in strictness of language, the latter refers only to the communication of disease by contact. Whatever may be the matter of infection, it may enter the body through the medium of the lungs, or by the saliva, or even through the surface, if the skin be abraded, or if any ulceration be present. The influence of infectious matter is evidently exerted on the nervous system, displaying itself by debility; inertness; dislike to motion; irritability and despondency of mind; and by the production of a disease similar to that of the person from whom the infectious matter has proceeded.

With the view of preventing such results, not only is it necessary to dilute the atmosphere of the room with pure air, but also to destroy the virulence of the infecting matter by chemical agents or fumigations. It is unnecessary to give any account of the numerous substances which have, at different periods, been used for this purpose; but merely to mention that the most efficient of them, and that one which is most commonly employed, is Chlorine, either simply diluted with atmospherical air, or mixed with air and moisture. The mode of extricating and employing it shall be described under the head of Fumigations. I may add here, that the substance most commonly employed as a disinfecting agent—namely, vinegar—is of very little value; and that pastiles, Camphor, and other odorous matters, are worse than useless. I think I am authorized, also, in affirming, that no fumigating or disinfecting agent is equivalent to cleanliness, frequent changes of the sheets and linen of the patient, and free ventilation, for checking the propagation of infection.

Next to ventilation, nothing is of more importance than the regulation of the *temperature* of the sick-room, avoiding both extremes of elevation or of depression; but much depends on the nature of the disease.

The best general temperature for a sick-room is 60° (Faht.), or that of summer in this climate;

and it is preferable to regulate this rather by the thermometer than by the sensations of the patient or the attendants. Under some circumstances, however, the feelings of the patient, and his susceptibility of impressions upon the surface, should not be overlooked. Thus, if the temperature be a little above that of summer, and the patient, nevertheless, feel chilly, it should be raised five or six degrees. This chilliness is very apt to be felt in a dyspeptic state of the habit, and more especially when it is accompanied with Hypochondriasis. It differs from that more severe but transient coldness which accompanies intermittent fevers and some other periodical affections; and it requires only an elevated temperature of the air for its removal, whilst the cold stage of intermittent diseases is best relieved by the warm bath, either general or local.

So important is temperature, especially in fevers, that it often does more good than any other remedial measure. I have seen patients labouring under high delirium, in a close, ill-ventilated room, become rapidly quite collected by merely lowering the heat of the apartment twelve or fifteen degrees. On the contrary, even a moderate depression of the usual temperature of the sick-room, in pulmonary diseases, will excite coughing and augment the severity of all the symptoms.

In convalescence, as the air of the sick-cham-

ber should be frequently renewed, the temperature in spring and autumn ought to be maintained as near as possible—namely, at 55 to 60° Fahr.; and it should be very gradually lowered as the invalid acquires strength, so as to enable him to bear with impunity the varying temperature of these seasons in the open air. Even then, if the previous disease has been pulmonary, the air admitted to the lungs should be tempered by the use of the respirator, or a muslin handkerchief tied round the mouth. When the invalid first ventures out of doors, nothing, indeed, is so essential, in a prophylactic point of view, as avoiding extremes and sudden transitions of temperature.

In regulating, both the admission of air into the apartments, and the temperature of the bedrooms of the sick, in particular of those susceptible of pulmonary diseases, much caution is requisite not to overheat nor to keep too dry the air of the room. Great dryness of the atmosphere augments the irritability of the mucous membrane, and causes cough: thence, when the invalid-room in winter is shut up, means should be taken, occasionally, to diffuse the vapour of warm water through the room. The ordinary Vase for preserving water boiling, on the tea-table, is admirably adapted for this purpose, if no noise accompanies it; but a basin of boiling water, renewed when it becomes cold, is sufficient.

Although *cleanliness* in the sick-room is essential, yet it may be carried so far as to become an annoyance to the invalid, and consequently to prove injurious. It is not requisite to sweep the room daily, nor to dust and arrange the furniture every morning, provided order be preserved in the room, and nothing be permitted to remain in it not immediately necessary for the comfort and the convenience of the sick. It is truly distressing to observe the confusion which prevails in some sick-rooms: every thing being out of place, and every thing to be searched for when it is wanted.

The period chosen for cleaning and arranging the sick-room should be the morning; as, after a night's rest, the patient is more able to bear the little noise and bustle which it always, more or less, occasions. The carpet should be sprinkled with moist tea-leaves, and lightly swept; and, during this operation, the curtains of the bed should be drawn.

It is scarcely requisite to insist on the necessity of the utmost attention to the cleanliness of every thing in the sick-room. The moment after any vessel or implement is used by the invalid, it should be removed from the apartment, and returned as soon as it is cleaned. Nothing in the form of a slop-basin or a slop-pail is admissible: it only administers to the laziness of nurses.

The necessity of cleanliness in the vessels

used for the food of invalids is strikingly illustrated in the bad effects arising from the neglect of it when an infant is brought up by hand. In such a case, if either the feeding-bottle or the boat which is employed be not instantly cleansed after the meal has been given, the small portion of the pap or food which remains in the vessel becomes sour, and taints the whole of the fresh food mixed with it, causing colic and convulsions in the infant. The same risk of injury occurs in the sick-room, if the vessels used for administering food to the invalid be not instantly and well cleansed after every time they are used.

It is too customary, also, to use one glass or cup for administering medicines, and to leave it unrinsed from time to time—a custom which may prove as deleterious as a defect of cleanliness in the vessels employed for food. Some medicines, when they are exposed to the air, rapidly undergo changes which alter their properties; and this alteration, having been undergone by the small portion which is always left in the glass or cup, communicates the disposition to be decomposed to that which may be next poured into the cup. Thence an active medicine may be rendered inert; or one which is mild in its operation may be so changed as to operate with hazardous energy. The same precaution, as to cleanliness, is also requisite with respect to the minim measure, when

the medicines are directed to be administered in a form which requires its employment.

It is a common error to imagine that a sick-room should always be either *partially or wholly darkened.* In some diseases—as, for example, fever—when the eyes are acutely sensible to light, so that they remain half closed, and the eye-brows are contracted, the greatest relief is experienced from darkening the room. When delirium is present, a certain degree of darkening is in some instances serviceable; whilst, in others, especially when the delirium is accompanied with visual illusions, nothing so rapidly dispels these, and consequently abates the delirium, as the admission of the full day-light into the sick-room. There is much difficulty, however, in determining which state of the apartment is likely to be most serviceable in any particular case. Observation of the effects of light and darkness, in the individual case, must be our guide.

These illusions of the sight are generally the result of former impressions, renewed at a moment when the brain is in such a disturbed condition as to set aside the exercise of judgment. In this condition of the brain, the renewed conceptions are not readily corrected, as in health, by impressions received from the external world; thence they become more vivid in the mind of the invalid when the sick-room is darkened,

and all visible objects are shut out. They are usually dispelled by new impressions on the organ of sense chiefly implicated; thence those which are connected with sight seldom occur during the day, when real objects are presented to the eye, unless the brain be so over-excited as to bring the conceptive faculty into intense exercise, sufficient to awaken those false perceptions which create a belief of the presence of individuals not only not present, but who have been long dead. This state of the mental organ is similar to that on which depends the spectral illusions of the insane, but differing from it in its transient nature. I have frequently witnessed the conversation with one of those spectral beings instantly terminated, and the whole illusion dispelled, on opening the window-shutters of the room; whilst the invalid has thus expressed himself: "Bless me! I thought I was talking with Mr. ——, just now; I must have been dreaming; for now I recollect he has been dead many years." A twilight obscurity in the sick-room is often more productive of these illusions than darkness.

When all the arrangements are completed in the sick-room, little benefit can be anticipated if a proper Nurse be not obtained to render them available to the invalid. Before describing the qualifications requisite to constitute an efficient Nurse, I cannot avoid embracing this opportunity of mentioning the great difficulty of procuring

properly instructed nurses in this country. It is, indeed, to be greatly lamented, that, amidst the numerous improvements which characterize the present era, the females who assume to themselves the character of sick-nurses, and are employed as such, are still left to acquire information, respecting the important duties which their office demands, from imperfect experience or from accident. We expect that the skill of our medical attendants shall be certified by diplomas and licenses before they are permitted to practice; but we leave their orders to be executed by the ignorant and the prejudiced, who not only, too often, fail in performing what they are ordered, but who, with the usual temerity of ignorance, presume to oppose their own opinions to those of the physician. Every female, who wishes to act as a sick-nurse, should be obliged to serve a certain time as an assistant nurse in one of the public Hospitals, and to receive a certificate of her efficiency before she leaves the establishment. The advantages which the public would derive from a body of nurses educated in this manner, must be obvious to every one who has had opportunities of observing the miserable working of the present system. We should no longer have to lament the neglect of cleanliness; inattention to ventilation and temperature; an obstinate and presumptuous opposition to the orders of the

medical practitioner in reference to diet: we should no longer hear of doses of medicines being given hazardous to life; or of patients poisoned by topical applications administered as internal medicines; and of numerous other evils which are now, unhappily, of daily occurrence.

In hiring a sick-nurse, the qualifications which should regulate our choice, refer to *age, strength, health, temper* and *disposition, habits* and *education.*

1. *Age.* She should not be under twenty-five, nor above fifty-five, years of age. This period is fixed upon, on account both of the physical powers and the moral conduct of the individual. Under twenty-five, the strength of a woman has not reached its maturity, and is scarcely adequate for lifting patients in and out of bed, and for many other duties which require strength, connected with the office of a nurse; and muscular power in females begins to fail after fifty-five, when the natural transition from maturity to decay takes place. There is also a greater proneness to disease at this than in the middle period of life. On the other hand, the gravity and steadiness of deportment essential to the situation can scarcely be expected from a young woman; whilst the natural irritability of temper connected with advancing life, renders a woman, above the specified age, incapable of patiently bearing with the whims and the caprices of the sick.

2. *Strength.* The foregoing remarks respecting age render it almost unnecessary to say that a woman of a naturally delicate frame of body is unfit for a sick-nurse: at the same time, a coarse, heavy, and masculine woman is, for many reasons, objectionable. Whilst strength is requisite, the frame should be such as to indicate activity. The stature should not exceed the medium degree; a little below this being less exceptionable than a little above it, provided the appearance displays a frame well knit together. Obesity and a heavy movement are objections, as they are frequently connected with self-indulgence, defective energy, and an inability to keep awake, or to be easily aroused from sleep. At the same time, a moderate degree of corpulence is not an invariable objection; as it may be connected with both activity of body and energy of mind, and is often associated with an easy, good-tempered disposition.

3. *Health.* None of the qualifications of a sick-nurse are of more importance than health. An individual who herself requires attention is ill calculated to attend upon others. A woman who is asthmatic, or has any difficulty of breathing, or an habitual cough; who is rheumatic or gouty, or has any spasmodic affection; palpitation; or periodical headach; vertigo; or tendency to paralysis; or who is consumptive, or scrofulous; or

has defective sight or hearing; or has piles; or any skin disease; or sore legs, or any thing which causes decrepitude; is disqualified for a sick-nurse. It is important, also, to ascertain that there is no hypochondriacal nor hysterical tendency, nor predisposition to mental depression. It is reasonable to suppose that the aid of the medical attendant should be requested, to determine and report upon the health of a person offering her services as a sick-nurse; but there are certain physiognomical and general appearances, connected with gait, attitude, and aspect, which, in a great measure, enable ordinary observers to judge for themselves.

Thus, there is a peculiar expression of the countenance, which cannot readily be described, although it is recognized as indicative of general indisposition. It is accompanied with pallor, or sallowness, and a dark hue under the eye, when chronic Dyspepsia is present: and with an approach to lividity, when the lungs or the heart is more or less affected. There is, also, reason to suspect that the affection of the heart is of a chronic or permanent character, when turgidity of the features accompanies the lividity of countenance. Stooping in walking; an inclination to one side and bending a little forward; a slow and cautious movement; tremor, or slight, short, lateral movements of the head; an elevated or wing-like

state of the shoulders; the skin dry, sallow, or brownish; and a fœtid odour of the breath; all indicate some deviation from health, and demand the opinion of a medical attendant respecting them, before the individual should be hired as a sick-nurse.

4. *Temper* and *Disposition.* It is scarcely requisite to say that an attendant upon the sick should possess a happy, cheerful, equal flow of spirits; a temper not easily ruffled; and kind and sympathetic feelings; but, at the same time, not such as to interfere with firmness of character. The expression of the countenance should be open and winning, so as to attract the good-will and confidence of the invalid; a pleasing and gentle manner being more likely to gain esteem, and ensure obedience to the orders of the physician, than the most persuasive arguments which can be addressed to his understanding.

Although beauty is not a quality to be sought for in a sick-nurse, yet, we are so accustomed to associate with it amiableness and gentleness of manner, that a certain degree of good-looks is a recommendation. In sickness, when the mind is weakened, and the nervous system morbidly susceptible, a harsh look or an unkind expression sinks deep into the mind of the invalid; and when the disease is of a nervous kind, a melancholy, anxious, or foreboding look, or one which in any degree indicates an apprehension of danger, either

in the physician or the nurse, instantly excites alarm in the mind of the invalid; and may counteract, in a great measure, the influence of the medical treatment.

> Is there no hope? the sick man said.
> The silent Doctor shook his head;
> And took his leave, with signs of sorrow,
> Despairing of his fee to-morrow*.

And well he might; for nothing would be more likely to ensure the fulfilment of his prognosis than such a look.

On the other hand, a collected, cheerful look, in the attendant on the sick, is likely to inspire hope, and to aid the efforts of the physician for the recovery of his patient.

The general disposition of a sick-nurse should be obliging. Every little office which the invalid may require to be done, should be performed at once, and without the smallest apparent reluctance, even when the necessity for its immediate performance is not absolute. There is also an earnestness of manner, which should, if possible, be obtained, or acquiesced in, by the sick-nurse; as it impresses the idea that she feels deeply interested in the case; a circumstance which is always highly appreciated by the patient. Every nurse should also be of a disposition to be easily satisfied;

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* Gay.

indifferent respecting the regularity of her meals, or interruptions during them: she should be able to bear confinement, and to suffer without murmuring the encroachments which the state of the patient must, frequently, make upon her hours of sleep.

Antipathies, in a sick-nurse, are serious objections to employing her. As an example, let us suppose the antipathy to be to spiders: if one of these insects is seen, or supposed to be seen, upon the bed of the invalid, she would not approach it, however urgently her assistance might be required at the time; and thus the patient would suffer.

Finally, it is unnecessary to say that a nurse should be honest, as no description of servant has so much in her power. But the honesty of the nurse is not to be measured by her respect for property; she must be above imposing on the physician, with respect either to medicines or to diet. Her religion, also, should be sincere, but not pharisaical; and, although she may occasionally persuade her charge "to put his trust in God, the fountain of health*," yet she must recollect that preaching is not her province; and, when mistimed, even the best advice may prove not only profitless, but injurious: and this is espe-

* Fuller.

cially likely to be the result, when the doctrines which she professes are of a controversial kind.

With respect to gossiping, it is a detestable habit under any circumstances; but, in a nurse, it may be productive of the greatest danger, produce family feuds, and a thousand other evils.

5. In her *habits*, a sick-nurse should be sober, active, orderly, and clean and neat in her person.

The first of these habits,—namely, *sobriety*,—is so essential a qualification in every attendant in the sick-room, that it requires no comment. Happily, the desire for spirits is now less frequent than formerly, when women were seldom employed as nurses until they were nearly superannuated, and until their habits, good or bad, were too firmly rooted to be removed. It is to be lamented that the predilection of nurses for stimulants is not yet eradicated; and it is too apt to be nurtured by the mistaken idea, that the duties of the sick-room require an extra allowance of stimulus, especially when the nurse has to sit up at night; in which case, brandy and water is usually allowed to her. But if a nurse have an adequate allowance of good wholesome food, and be not over fed; and if she be permitted to take exercise for an hour or two daily, out of doors, in order to prevent the swelling of the legs, to which nurses are subject, from their sedentary occupation; she

will perform her duties well, and with little personal fatigue, without either wine or brandy.

Among other habits which disqualify a nurse, is snuff-taking. This dirty mode of stimulating one organ cannot be commended in a man, although so commonly employed; in a woman, it is disgusting; in a nurse, highly reprehensible.

The *activity* essential for a good nurse does not imply a bustling or a fidgetty character, but a quiet, steady method of proceeding in the performance of her duties, equally devoid of fluster, turbulence, or noise. This activity is generally associated with orderly habits; a most valuable qualification, and without which the sick-room becomes a scene of confusion and disgust. Every medical man must have witnessed this state of disorder with regret: when, on visiting his patient, he finds no chair to sit upon, until some article of bedding, or of clothing, be removed from it, and the seat dusted with the apron of the nurse; and when a former prescription, or any thing else, is wanted, he must wait until the nurse rummages out half a dozen of drawers in search of it.

Another quality, usually conjoined with activity and orderly habits in a nurse, is cleanliness in her own person, and in that of her charge, as well as that of the sick-room. The dress of a nurse should be simple and neat, without trimmings. Nothing is more out of place than a fine lady attempting

to perform the duties of a nurse. Whatever may be the stuff of which it is made, the apron should have pockets in it, in the fashion of the Parisian servants. Neither the gown, nor any of the outer garments, however, should be woollen, especially if the disease be infectious, as it is apt to absorb and retain the infection. When the disease is decidedly infectious, the apron of the nurse should be made of oiled silk.

As the time of a nurse is at the disposal of her employer, her hair should be dressed in the simplest mode; curls are altogether out of place.

It may appear a refinement to talk of the *education* of a nurse; but there is not a greater difference between noon-day and midnight than between an educated and an ignorant nurse. The former is often an aid to the physician, not only in carrying his orders into effect, but by observing and informing him of symptoms of great importance which have occurred during his absence: whereas the latter is a source of constant anxiety, and too often assumes the privilege of acting in direct contradiction to his orders, and according to her own opinion.

Every nurse should be able to read and write. The better informed, the less likely is she to be biassed by low prejudices. A nurse, also, who cannot read, may be the cause of much mischief in the administration of medicines. Many years

since, I was attending, in conjunction with the late Doctor Baillie, a lady labouring under Typhus fever. The attack was terminating so favourably, that, a few days after our patient was able to be in her drawing-room, we discontinued our daily visits, and saw her only every third day. Although convalescent, yet she was still taking bark draughts twice a day; and as Opium, when administered internally, greatly disturbed the brain and deranged the digestive organs, an opiate liniment was rubbed every evening along the spine. We had paid our last visit; and having congratulated her husband and family on her restoration to health, we took our leave. Three hours afterwards, I was again hastily summoned; and, on arriving at the house, found my patient a corpse. The agonizing feelings of the family may be more readily conceived than described; the overwhelming grief into which they were plunged was greatly augmented by the reflection that the daughters were, in some degree, the innocent cause of the awful event—an impression which proved nearly fatal to the husband, and fixed upon the daughters a settled melancholy, from which they have never entirely recovered. The fact was this—the Nurse, who was an old servant in the family, could not read, and, consequently, had not been trusted to give her mistress her medicines, until a few days before her death.

Owing to the convalescence which was then established, the young ladies ventured to walk out in the middle of the day, leaving their mother in the charge of the Nurse. On the occasion in question, the poor woman had administered the opiate embrocation instead of a bark draught.

After the relation of this distressing anecdote, it is unnecessary to add any further comment on the danger of ignorance in the immediate attendant upon the sick.

The term "an experienced nurse" is supposed to comprehend every good quality: but let us examine the meaning of the phrase.

Experience is a quality which deserves to be much and justly prized in a nurse, were the term not too frequently misapplied, and confidence placed in the nurse merely because she is advanced in years and has seen much, without any inquiry as to her capacity for observing, and making a proper use of what she has seen. Number of years and much opportunity are not a guarantee of wisdom, nor of true experience. Age undoubtedly may be supposed to afford the means of enlarging the ideas; but every one is not endowed with the power of benefiting by the best opportunities; and it is here that the advantages of education are displayed in the nurse. Without it, seventy years may have merely added to her sum of stupidity. The poor woman has had eyes;

but she has never fixed them with attention upon what was before them; and when she has accidentally observed, having no capacity for generalization, the observations, like most isolated facts, have been lost. She is the mere creature of routine; a machine moved by custom or prejudice: whereas the properly educated nurse acquires the power of observing and comparing, and consequently of reflecting and drawing proper conclusions. It is this power of comparison which education bestows, and which, in conjunction with a habit of observing, accumulates knowledge in every rank of life. The old and the ignorant nurse appeals to her experience: but what is the value of that experience? The educated nurse, on the contrary, acquires from experience the capacity of observing changes in the progress of the disease which call her judgment into requisition, and which may justify her from pausing in the plan laid down for her guidance, until the physician is sent for, or repeats his visit. Her reasons for the deviation from orders will be listened to by the Doctor; and, without lowering his dignity, a useful hint from an intelligent nurse may be adopted and acted upon, much to the advantage of the patient. From what has been said, the necessity of education and intelligence in the sick-nurse cannot be doubted.

CHAPTER II.

NECESSITY OF INTELLIGENCE, SELF-CONTROL, AND JUDGMENT, IN THE UNHIRED ATTENDANTS OF THE SICK-ROOM. THE MANAGEMENT OF THE INVALID ILLUSTRATED IN DIFFERENT DISEASES.

THE selection of a good nurse, however eminently qualified she may be for her duties, does not supersede the attendance of a relative or a friend in the sick-room: on the contrary, I can conceive no condition so deplorable as that of an invalid left, altogether, to the care and management of a hireling. It is, nevertheless, too true that few ladies, even those who are wives and mothers, have any acquaintance with the arrangements of the sick-room, and the management of the invalid; they are, consequently, too often forced to be guided by, and to rely for instruction on, the nurse, instead of being able to superintend her conduct, to ascertain that she performs her duty, and to correct her failings. This is a lamentable evil in the education of females of the higher and the middle classes, in the present time; and the object of this volume is to remove as far as possible the dangerous consequence of this state of ignorance.

The degree of *intelligence* which is demanded

in a nurse is very different to that which is requisite for a wife or a relative in the sick-room. The intelligence of the nurse is directed to supply the wants of the invalid, to administer to his comforts, and to obey the instructions of the physician; that of the friend or relative involves the power of discriminating disposition and temper; of watching the progress of the disease, and judging of the propriety of not pursuing certain measures, which, although indicated by the symptoms at the time of prescribing, yet may require to be altered, and consequently detailed to the physician; and of controlling the feelings in the presence of the invalid.

Nothing is of more importance, in the domestic management of diseases, than a knowledge of the natural disposition and temper of the invalid. An irritable or passionate man requires very different management from that which is proper for a man of naturally mild and easy disposition. Disease awakens, in an augmented degree, the irritability of the former; he becomes impatient of contradiction; and every time his opinions are injudiciously opposed, the turbulent agitation of the nervous system which follows, either increases the disease or weakens the influence of the remedial agents. On the other hand, a mild and gentle disposition often leads to extreme sensitiveness, when disease attacks the body: a word, a look, is

sufficient to touch some sympathetic cord; to unstring the whole nervous system; and to augment the morbid susceptibility already present in the habit to a degree which is not always devoid of danger. Much discretion and judgment, therefore, are requisite in both instances: in the one case, to prevent ebullitions of temper; in the other, to refrain from any thing that might be construed by the invalid into harshness; and yet, at the same time, in each case, to maintain that influence over the patient which the treatment of every disease demands in an attendant on the sick. Such a degree of intelligence, and a proper regulation of mind adequate to such a task, cannot be expected in a hired nurse; and it is only found in those, even in a higher sphere of life, in whom education and the acquirements resulting from it have been of a description to constitute a well-regulated mind. It must, however, be admitted that the power of judging is less diversified in different individuals than is generally supposed; but the distinction between one person and another, on this point, is greatly owing to the degree of attention which is bestowed upon the things or the facts on which the judgment is to be exercised. It is well known, that, in the lower ranks of society, no habit is so little cultivated as the habit of attention. Thousands pass from the cradle to the grave without seeing correctly a single object

which passes before them; and if we reflect how essential this faculty of the mind is for the improvement of the intellect, the importance of not intrusting the domestic management of the sick wholly to nurses surely requires no comment. But this power of steady attention exacts a degree of abstraction, which can only be acquired by a voluntary act of the mind; yet, when it is once secured, no mental operation is so much strengthened by exercise. It is erroneous to suppose that such a condition of mind is only demanded for those who are destined for controlling and regulating the destinies of Empires, or advancing the intellectual character of mankind; it is equally essential in the ordinary engagements of life, and in none of these more than in the management of the sick-room. This quality farther embraces the power of successfully cultivating an active and inquisitive habit, which seeks for information from every event which occurs.

In those who are imperfectly or erroneously educated, the judgment is apt to be biassed by *prejudice* and *antipathies;* and, under the influence of these, it is misdirected in a manner of which the individual is often wholly unconscious; thence the necessity of freedom from prejudice in the attendants in the sick-room, and the farther importance of the friends or relatives of the sick

being able to superintend the conduct and the management of hired nurses. On the other hand, the judgment, even in the well-educated, is apt to be misled by the *affections*, the influence of which is as much opposed to its healthy exercise as the prejudices of the ignorant. Self-control, therefore, is also an essential qualification for the sick-room. This, however, when properly cultivated, does not interfere with the exercise of the greatest tenderness and sympathy; but it imparts a firmness and steadiness of action which cannot be expected either from hired nurses, or from those educated to foster what is erroneously termed fine feelings.

It is only from knowing that the attendants of the sick are possessed of intelligence and self-control, that a physician can rely upon having his orders correctly and duly executed: when those qualities are absent, he has to dread, on the one hand, the presumption of ignorant prejudice, and, on the other, the improper yielding of sensitive indulgence. To the invalid, also, it is important to know that the directions of his physician are fulfilled by an intelligent person; for, even in the most severe diseases, as long as the mental faculties remain unaffected, a sick man is capable of detecting ignorance, or the effects of prejudice, in his attendants; and, when he is convinced of the existence of either, all the influence of the individual, whether nurse, or friend, or relative, is at

an end. But such a control over the mind of an invalid can easily be acquired by those who seem to contemplate what is passing before them with a calm and steady attention, and who are not in the habit of pronouncing a hasty opinion. The possession of such a sound understanding, or its absence, in the physician or the nurse, or the other attendants of the sick-room, is, as I have already said, more easily detected by the invalid than is generally supposed; and it is from a conviction of its presence only that confidence can be expected. But, even with this power of appreciating the capacity of his attendants, it is possible that an invalid may be acted upon and misled by the persuasion of a plausible individual; for, under no circumstances is the mind so liable to be fettered by the opinions of others as in disease, when they refer to the treatment of the malady. I have witnessed instances in which men of the highest powers of intellect, and the most extensive acquirements, have listened to the advice of ignorant nurses, or misguided friends, who have presumed to question the medical treatment of the case. Such a remark as this—"I have seen a case the same as yours get well directly by a very different kind of treatment"—cannot be too severely deprecated.

The evil resulting from weakness of this description is, indeed, often great: it is not confined to the nature of the empirical remedy alone, which may

be perfectly harmless; but, frequently, the loss of time, from neglecting the proper treatment, may fix a disease, easily removeable in the first period of its attack, so firmly in the constitution as to resist the influence of the most efficient practice at a more advanced stage. Could no other proof be obtained, this would be sufficient to display the necessity of placing the sick-room under the guidance of an intelligent, reflecting individual, whose attention will be alive to every thing that passes, and who is capable of forming a correct opinion, and reporting upon the value of the medical treatment from its effects. Although an individual thus gifted is not likely to be found amongst the race of hired nurses, yet it must be admitted that such a condition of mind is not incompatible with very limited attainments in other affairs; but, at the same time, it is never found unaccompanied by that quality which we usually designate sound good sense. In the other business of life, it enables its possessor to act with promptitude, and the decision to which it leads is usually correct: in the sick-room, it is, on that account, a qualification of intrinsic value.

Were the business of the sick-room (independent of the wants and comforts of the invalid) confined to the mere observation and collection of facts—namely, the noting of the symptoms of disease—and reporting them to the physician, it would

be superfluous to urge the necessity of superior intelligence in its superintendent; but many of its duties require not only a well-regulated understanding, but an equally sound condition of the moral feelings and the benevolent affections, with a recognition of the authority of conscience in the whole operations of life. In the period of sickness, under the direction of the judicious and discreet, an invalid may be led to the investigation of his moral and religious condition, and to review his past conduct, with the determination of turning the result to his future welfare, should he happily recover and re-enter society. Surely such important duties as these cannot be entrusted to the unqualified, or the ignorant, or the hireling; nor can more be required to demonstrate the importance of adding to the other branches of female education a knowledge of the various important duties of the sick-room, which, as mothers or daughters, wives or friends, they are likely to be called upon to fulfil.

Having, I trust, demonstrated the value of intelligence, self-control, and a well-regulated mind, in the superintendence of the sick-room, I shall next proceed to point out the general domestic management of some diseases which require confinement to it. More particular details will be found in future chapters.

1. *Continued fevers* are those in the progress of which there are no obvious intermissions or intervals of abatement of the symptoms.

For our purpose, it is scarcely necessary to comment upon the previous languor, lassitude, and other premonitory symptoms, as they are seldom attended to, either by the invalid or his friends, until the fever advances to its full development. When, however, they are noticed, and advice is early procured, it is important to make the physician or medical attendant aware of the previous habits and mode of life of the invalid.

It is always advisable to obtain medical aid on the first feeling of febrile indisposition, even before irregular chills and heats display themselves, and subside into a hot skin, quick pulse, hurried or otherwise embarrassed breathing; as something may be attempted, at this time, to cut short the disease; whereas, if it be allowed to pass beyond this point, it will run its course, and the efforts of the physician, in the emphatic language of the late Dr. James Gregory, can then only assist "in obviating the tendency to death."

Whatever is ordered, whether an emetic or purgatives, should be administered promptly, and in the quantities prescribed, without any opposition from the dread of debility. However apparently weak a patient may seem, relatives may be

assured that, when judiciously ordered, "purgatives do not aggravate the debilitating effects of fever*."

Let us now suppose that a fever is fully developed, and the patient already confined to bed; and let us consequently enquire what domestic management is best fitted to aid the efforts of the physician. In this stage of the disease, the symptoms which will most obviously arrest the attention of the family, or the attendants in the sick-room, are the pungent heat of the skin, and the disturbance of the brain, producing great restlessness. Slight delirium is also frequently present, but chiefly during the night, and it usually either abates or disappears as the morning advances. At this period of the disease, the senses are generally much disturbed; and the ear as well as the eye is especially affected. The hearing indeed is often so morbidly acute, that the smallest noise causes distress, if not pain; or there is the sensation of a constant ringing of bells, or rushing of water, or some other illusory sounds in the ears; whilst the sense of hearing, in other instances, is obtuse.

With the view of lessening the heat of the skin, a free exposure to cool air, or sponging the body with cold or tepid water, or even the cold

* Hamilton's Obs. on the Utility and Administration of Purgative Medicines.

effusion, i. e. cold water poured over the whole body, may be ordered, and should be strictly performed. I am the more anxious to impress this duty of obedience upon the friends of the patient, always presuming that they repose confidence in their physician, as the use of the cold effusion, even in instances where it is calculated to save the patient, has been strenuously opposed in this country. At the same time, however, if the feelings of the invalid himself be very repugnant to the employment of the cold effusion, the physician may be properly requested to explain, whether his reasons for ordering it are so urgent that cold sponging may not be substituted? When the medical man urges its use, but does not see it employed, the precautions mentioned in Chapter Fourth should be always held in remembrance. With the intention of subduing the delirium, the head may be ordered to be shaved, and the scalp kept cool by means of a refrigerating lotion; or the cold douche, on the head, to be employed. Whatever lotion is ordered, it must be assiduously applied*, as the benefit greatly depends on the maintenance of the evaporation of the fluid, which is the cooling agent. In applying it, the moistened cloths should be laid gently over the scalp, not dashed upon it, as I have seen too often done, to the great

* See Chapter Fourth.

discomfort of the patient. In employing the cold douche, if the jug from which the stream of water is poured be too suddenly raised, the shock is often so great that the patient objects to its repetition; but when it is gradually raised, in consonance with his feelings, the relief which it produces is so obvious to him that he requests it may be repeated. There is, however, a state of low delirium in fever, which does not depend on excitement of the brain, but which appears to be connected with an opposite condition of that organ, as it occurs in a feeble and exhausted state of the habit; thence, neither the cold effusion, nor the cold douche, nor even cold sponging, should ever be attempted by the advice of the nurse, or of any other person, without the authority of the physician.

The morbid sensibility of the eye may be abated by darkening the room, with the precautions already pointed out; whilst, it is scarcely necessary to say, that of the ear demands quiet, and complete abstraction of sound or noise. The step of the nurse, or of any one entering the room, should be as light and noiseless as possible. I have heard patients, under such a condition of the sense of hearing, affirm that a heavy footstep has produced a sensation as if a sword had pierced the head.

When cough supervenes in continued fever, and tartar emetic is ordered in large doses, I have

seen its use suspended by a nurse for twenty-four hours, or until the next visit of the physician, because it had twice produced severe vomiting. Its tendency to vomit at first should always be mentioned by the medical attendant; but, as this information may not be given, it should be generally known, that, although the first and the second dose may cause vomiting, yet the subsequent doses seldom produce that effect, whilst the cough abates under its employment. On the other hand, should the tartar emetic cause purging, its further employment should be suspended until the physician is apprized of that effect; and this should also be done if acute pain suddenly attacks the chest, indicating pleurisy. Indeed, even when the pain is slight and obscure, the physician should always be informed of its presence.

When leeches are directed to be applied to the abdomen in fever, to subdue intestinal inflammation, the bleeding is best maintained by a moderately warm poultice, renewed at intervals of two or three hours. If the poultices be applied very hot, the bleeding is rather checked than favoured.

In fevers, especially when intestinal irritation supervenes, the utmost attention is required to be given to the appearance of the stools; thence they should be carefully preserved for the inspection of the physician. Should they become very watery, the use of purgatives, although they may have

been previously indicated, should be suspended until the next visit of the physician. I have seen nurses, who have had much experience in the management of fever, judiciously apply leeches on their own responsibility, when the bowels became irritable, the tongue red, and diarrhœa supervened: but nurses presuming to prescribe, even when their plan has proved beneficial, is a practice never to be encouraged.

The diet of the invalid, labouring under such a state of the bowels in fever, should be of the blandest description—namely, thin grit gruel, milk and water, or arrrow-root, with or without an admixture of chicken broth or weak beef tea, according to the degree of the strength of the patient. In administering these, and indeed in the treatment of the disease throughout, in reference to food and beverage, although it may be necessary to administer both at short intervals, yet nothing is more distressing to persons labouring under fever than the over-officious mode which some attendants adopt of pressing either food or drink upon them, or too frequently enquiring whether they desire them. The importance of avoiding such a source of irritation should always be strictly enforced.

When the fever is of a complicated kind, or displays symptoms of a low, nervous character, or

of Typhus, some modification of the foregoing rules is required.

When wine is ordered, the utmost circumspection in its administration is requisite. When the exact quantity is not prescribed, attendants and nurses, from observing its beneficial influence in propping the sinking state of an invalid, in Typhus fever, are apt to exceed the proper quantity, and thus, instead of supporting strength, to produce secondary exhaustion. There is, indeed, much difficulty, on the part even of the physician, in determining the quantity of wine which the case demands; consequently it should never be left to the discretion of a nurse. If, accompanied with much debility, purple spots appear, the fact should be instantly communicated to the physician, as a necessity for wine is then indicated: and the same precaution is necessary when a sudden sinking occurs after purging. Some wine should be given, and the doctor immediately informed of the change which has taken place. When the quantity of wine to be given in twenty-four hours is fixed by the doctor, it should be given in a small quantity at a time, mixed with water, or barley water, or some other farinaceous substance. When the invalid is young, the wine should be more diluted than in an after-period of life. The kind of wine may be left to

the choice of the patient: but, usually, the physician regulates this point. When porter, or any other fermented liquor is ordered, the same precautions are requisite in its administration as when wine is prescribed.

It is scarcely necessary to say that a daily change of linen is especially requisite in this form of fever: and the necessity of removing every excretion as soon as it is evacuated must be obvious. The room should be kept sweet by the solution of Chloride of Lime (see Fumigations): but, during its use, the air should be freely admitted to the apartment. It is, also, important to pour some of the solution into the pan of the night chair, or into the bed pan, before either is used.

In every fever, abstinence is essential; but, if food be given, it should be of a farinaceous kind, and acidulated with lemon juice or raspberry vinegar. When the thirst is great, a cup of weak *black* tea, poured into a tumbler of cold water, proves very refreshing. The administration of animal food, either in the shape of beef tea, broth, or in the solid form, must not be attempted without the authority of the physician.

When continued fever is accompanied by frequent, copious, watery stools, these should be particularly mentioned to the physician, and nutritive demulcent drinks given frequently, in small

quantities at a time; and tepid sponging employed: but the temperature of the apartment should not be reduced under 50° Faht.

When restlessness occurs, a change of bed often allays it, and favors sleep: and, as tepid fomentations to the lower limbs are also likely to be ordered, these are best done by the patient sitting up in an arm chair, lying back, with his limbs on a footstool.

Remittent Fever is that form of fever in which the symptoms partially abate in violence, without altogether disappearing for a specific time as in Ague. It is more likely to occur in the upper ranks of life than Typhus. One of the features of the disease is an impression on the mind of the patient of its necessary fatality; an opinion which should be gently combated, and every means taken to inspire a hope of recovery. Besides the means already described, as necessary to be followed in continued fever, the most cooling diet,—namely, farinaceous matters acidulated, and fruits of a subacid kind,—are indicated; but they should not be too freely administered.

A fever attacks children, which has been named Remittent. This, at first, displays itself by drowsiness, pain of the head and belly, loss of appetite, and irregular, slimy stools; picking of the nose, lips, and skin; an offensive breath; grinding of the teeth; imperfect, disturbed sleep; and general

fever. These premonitory symptoms should never be overlooked; but medical advice should be immediately requested. In this fever, confinement to bed, a darkened room, and mild demulcent drinks, are required; and, whatever may be the nature of the medical treatment, the utmost caution in respect to diet is requisite during the convalescence. The food should be light and unstimulating.

The above remarks apply, equally, to almost every form of fever: but some particulars require to be noticed respecting those fevers which are attended with eruptions, and which rarely appear more than once during a life-time.

Small-pox being an infectious fever, every precaution should be taken, when it appears in a house, to separate the affected person from all the rest of the family who have not had the disease. The term of incubation, or that which elapses between receiving the infection and the appearance of the eruption, is from seven to twenty days: on which account, when certain symptoms of small-pox at any time appear, a system of preparatory treatment should be commenced. The most prominent symptoms are weakness, especially of the back, pain at the pit of the stomach, increased on pressure, drowsiness, and a fit resembling a paroxysm of Epilepsy. Under such circumstances, advice should be requested, and the patient con-

fined to an isolated apartment; a precaution of importance, as the sphere of the infection is much wider than is usually supposed; and it is capable of acting even before the eruption appears.

The domestic management of the febrile part of the disease, in its confluent form, is the same as in continued fever. In the period of the maturation of the pustules, if leeches be ordered to the throat, the bleeding should be maintained by fomentations of poppy-heads. The diet should be cooling; and the beverage lemonade, or any mild acidulous fluid: the effervescing lemonade is the best. The apartment should be darkened, on account of the condition of the eyes; and the head should be shaved. If, in the stage of the decline of the eruption, and during the progress of the secondary fever, a sudden sinking, tremor, and clammy sweats, take place, wine-whey or some mild cordial should be administered, without waiting for the physician; and when the pustules sink, or change to purple, then mulled claret, or warm spiced wine of some kind, should be freely given.

It is always considered important to prevent pitting; and numerous plans have been proposed for that purpose. Among the latest, the compound mercurial plaster is recommended by M. Nonat, a French physician; and almond oil by Baron Larrey. The principle of operation of all the applications is to shield the pustules from the

influence of the air; and it is of little consequence whether this is effected by gold leaf, as is the custom of the Arabs and Egyptians, or any greasy substance, which I have seen perfectly effectual, when the face is anointed with it.

Notwithstanding the cough, sneezing, and other symptoms, which precede the eruption of *Measles*, little attention is paid to them; and it is not often, until the rash appears, that the invalid is confined to his room, or his bed, unless the disease is epidemic at the time; and, thence, becomes an object of general interest. But Measles are as infectious as the Small-pox, even before the eruption appears; and the clothes retain and carry the infection: thence the necessity of separating the invalid from others who have not had the complaint, and of throwing the clothes into water immediately after they are put off.

The invalid should be kept in bed, even when the disease is mild. The bed-room should be airy, and kept at a summer temperature; but the patient must not be exposed to a current of air. The mildest attack should never lull us into security as to the issue of the disease. Danger may arise suddenly when least expected. The custom of heaping bed clothes on the patient, and drawing close the bed curtains, is to be reprobated: but the sick-apartment should be kept quiet, and the light subdued on account of the inflamed

state of the eyes. Until the eruptive fever is over, the invalid should have only mucilaginous fluids, without any other food.

If delirium, with severe headach, suffused eyes, and great aversion from light, supervene, danger is to be apprehended, especially towards the close of the eruption. In such a case, no delay should take place in apprising the medical attendant of the presence of these symptoms. If leeches be ordered, and the invalid is a child, the spot for applying them should be one which affords a solid resistance to pressure; and the bleeding should be cautiously maintained, if they are applied late in the evening.

When the eruption appears imperfectly, nurses, if not watched, are apt to administer Saffron, wine and water, or hot punch, to drive it out; a practice fraught with danger. The physician's orders, in such a case, cannot be too strictly followed.

When the disease has terminated, much caution is still requisite to prevent inflammatory attacks of the lungs and other organs; and there is no disease in which it is more essential not to discharge too soon the medical attendant.

None of the eruptive fevers requires so much attention, both from the physician and the nurse, and other attendants of the sick-room, as *Scarlet Fever*. It is most commonly propagated by infection; but it appears at very indefinite times

after exposure to the infection, and with various degrees of severity in different individuals, even in the same family. So powerful, indeed, is the infection, that the attendants on the sick often suffer from sore throat, although they remain otherwise well. These are surely sufficient reasons for sending away every one who has not had the disease, when it appears in any family. For the same reason, namely, its very infectious character, the nurses and attendants in the sick-room should be restricted from intercourse with the rest of the family. The mildest form of the disease—in common language, *Scarlatina*—is as infectious as the most malignant form, and may induce the latter; the character of the attack depending on the condition of the person at the time he receives the infection. The age most susceptible of the infection is from fifteen to twenty: and females are more liable to it than males, in the proportion of 2½ to 1.

It should be known that the rash of Scarlet Fever appears first on the face, then spreads to the neck, chest, and trunk, and passes off by the extremities. When the throat is affected, and the disease is more severe, there is always some delirium, and the strength fails. This is especially the case when the fever is of a low or typhoid kind; when the throat is much swollen or ulcerated, and the eruption appears in irregular blotches, or

becomes livid: when the tongue is dry, brown or black, or smooth and glossy; the nostrils discharging an acrid matter which excoriates the upper lip; and bleedings taking place from the mouth, the lungs, or the bowels. Under such circumstances, danger is always present.

When the disease is mild, little more is required than keeping the patient in bed, on a spare, fluid, vegetable diet. In the malignant form of the disease, the ulcers of the throat require to be powerfully stimulated, and sometimes the nostrils syringed: the former is best done by means of gargles* or a sponge, and the latter by a gum elastic bottle, mounted with an ivory tube. The sponge should be tied on a handle of wood or whalebone. When fumigations are ordered, they must be done in the manner described in the fourth chapter (see *Fumigations*); but nothing is equal to the admission of fresh air. In severe forms of the disease, also, when the cold effusion is required, it should be carefully and effectually done (see *Cold Effusion*).

The sequel of Scarlatina requires as much care as the disease itself, especially when dropsy supervenes. No interference with the medical treatment should be permitted.

* An excellent gargle may be made with twelve fluid drachms of the solution of Chlorinated Soda, four drachms of honey, and five and a half fluid ounces of water.

Although *Erysipelas* requires different treatment according to the nature of the attack, and the age, sex, and constitution of the invalid, yet all the varieties demand nearly the same domestic management: it should be that of continued fever. Quietude of mind as well as of body is essential in every case.

The best diluents are those which are subacid; such as infusion of tamarinds, tamarind whey, lemonade, and the like. If delirium or stupor supervene, in the absence of the physician, the hot foot-bath may be employed.

When incisions are ordered to be made into the diseased part, the surgeon should give directions respecting the time of checking the flow of blood; but, as this is sometimes neglected, it is proper to point out certain precautions necessary in such cases. The incised parts may be either fomented, or they may be covered with a common poultice, containing no greasy matter. In delicate persons, or in old people, the influence of the bleeding should be closely watched. It should be stopped as soon as the pulse becomes feeble and irregular; and, when the strength sinks suddenly, wine and even brandy and water may be given; but their use should be discontinued as soon as the strength begins to rally.

When Erysipelas attacks infants, if the mothers are delicate, a good wet-nurse should be instantly

procured. Cordials are indicated in such cases; but they should never be administered without the authority of the physician.

If the inflamed skin be ordered to be pencilled with a solution of Nitrate of Silver, and the strength of the solution is not prescribed, it is proper to know that the best proportions are one drachm of the Nitrate to a fluid ounce of distilled water, and eight minims of diluted Nitric acid. This solution should be applied by a flat, large camel's hair pencil, and equally spread over the surface to the extent of an inch beyond the affected part of the skin, and allowed to dry upon it.

Some physicians and surgeons order compression with a bandage in the latter stage of Erysipelas of the legs. It may prove useful after the inflammation has completely disappeared, and the limbs remain swelled: but much attention is required to apply the bandage with an equal degree of pressure, not bearing more upon one part than upon another.

2. *Inflammatory Diseases.*—General *inflammatory fever* is a rare form of disease; but local inflammations, attended with fever, are common. This form of disease, in reference to the attending fever, is characterised by a hot skin, a strong, hard, and quick pulse, and local pain; but with little or no feeling of debility. The accompanying fever differs from the fevers already noticed,

chiefly by its sudden accession; the presence of the local inflammatory affection; the state of the pulse; and the high colour and the deposition of red sediment in the secretion of the kidneys.

Inflammation of the Brain (*Phrenitis*) is one of the most formidable of local inflammations, whether the membranes or the substance of the brain be affected. It is ushered in by violent headach, intolerance of light, flushed face, excruciating pain of the head, extreme restlessness, and many other symptoms which do not, here, require to be mentioned. The disease in the acute form, when it terminates fatally, runs its course usually in a period from five to twenty days. It most commonly attacks children, and those in advanced age, and more commonly the male than the female sex; and it occurs more frequently in summer than in winter.

As the disease may be anticipated in children, it is of some importance to be aware of the most striking of the prefatory symptoms; namely—startings, and a kind of croupy breathing during sleep; a slight cast or rolling of the eyes; and dilatation of the pupils. When these appearances are present in children, no time should be lost in obtaining medical advice; and when the disease is fully developed, the utmost vigilance in watching the symptoms and care in following the directions of the physician are essential.

The head is always ordered to be shaved; and either evaporating lotions, or pounded ice, or the cold douche, applied to the scalp. The method of employing each, as mentioned in the fourth chapter, must be strictly followed: and, as reaction is apt to succeed the application of cold to the surface of the body, unless it be continued so as to insure its permanent depressing influence, the application of the cold to the head must be steady and unremitted; whilst, at the same time, the feet should be kept warm.

I have witnessed the most strenuous objections made, by parents, to blood-letting in children; but it should be known that, in inflammation of the brain, it is the principal remedy to be relied upon. The most profound tranquillity of body and mind is most important in this inflammation. All noise and light should be excluded from the sick-room; every individual who enters it should slip the feet into list shoes, and tread as lightly as possible. No food whatever should be allowed, except by authority of the physician; and the beverage should be toast-water, barley-water, or rennet whey.

If convalescence, happily, be secured, the necessity for closely watching the patient is not at an end. The same degree of quiet, the same care to prevent any excitement, and the same regulation of diet, must be continued for some time after all

apparent danger is over. In no disease is relapse so much to be dreaded; and it may be induced by very trifling causes; namely, exposure to a current of air, an improper meal, any mental emotion or exertion, or a confined state of the bowels.

Water of the Brain (Hydrocephalus) is one of the most common results of inflammation of the membranes of the brain in children; and nothing is more valuable to a parent than a general knowledge of the premonitory symptoms; for in no disease is the adage—prevention is better than the best attempts at cure—more applicable than in this disease.

The approach of the attack is indicated by capricious or defective appetite; the region of the stomach being tumid and tender on pressure; the bowels torpid; and the evacuations lighter or darker than natural, and slimy in aspect. The tongue is furred, and the breath heavy. The child becomes languid, drowsy, yet restless at night; grinds the teeth during sleep; complains of occasional dizziness; is impatient of noise and of light; silent, yet irritable; and frequently sighs. As the disease approaches its development, the little sufferer occasionally trips and staggers in walking. Children, also, who are predisposed to the disease, frequently display intellectual precocity. It is in

this state of things that the utmost attention is required to the condition of the bowels, if any possibility of warding off the disease can be anticipated; and a daily inspection of the evacuations should be made both by the parents and the medical attendant. Without entering into any detail of the symptoms of the fully developed disease, it may be stated, that *Water of the Brain* runs its course in a period of from two to three weeks; that, although its fatal termination is always to be dreaded, yet the cases of recovery have been sufficiently numerous to afford confidence in the influence of medical treatment in combating it. But much depends on the period at which the disease is detected. The sooner the treatment is commenced, the greater is the certainty of benefit being obtained; and, when any one of a family has already suffered from the disease, the precursory symptoms should never afterwards be overlooked.

If bleeding from the jugular vein be practised, alarm need not be excited by the insensibility, which ensues, continuing for an hour or more afterwards; and nothing should be attempted to bring on reaction. The use of cold lotions, ice, or the cold water douche on the head, when ordered, should be persevered in until the intention be fully obtained. A cold stream of water is some-

times ordered to be directed upon the crown of the head, and continued for some moments; but it ought never to be done without the presence of the physician, as it may produce alarming collapse. A much less hazardous sedative is the letting cold water fall, drop by drop, upon the scalp, until the head remains cool on intermitting the operation. For the same purpose, Mackintosh's water-cushions may be used. The cushion should be filled to one half only of its capacity with iced-water, and the little patient's head laid upon it, so that the nape of the neck and the back of the head will lie on the middle of the cushion. As the fluid becomes warm, which usually occurs in half an hour, the cushion should either be re-charged with fresh iced-water, or replaced by another already charged. When the child expresses dislike to the cold cushion, it is the best indication that the period for using it, without recharging it, should be gradually extended, or that it may be altogether laid aside.

When Calomel is ordered to be given in divided doses, with the view of affecting the constitution, it should be administered uncombined, by laying it dry upon the tongue of the little patient, for, by this method of proceeding, it hangs about the mouth and fauces, and is more readily taken into the habit. If, instead of being introduced through the stomach, it be ordered to be rubbed

upon the gums and the inside of the cheeks, care should be taken to prevent the saliva from being swallowed. When, instead of using Calomel, the strong mercurial ointment is ordered to be rubbed upon the arms or the thighs, the hand of the nurse, or the person who performs the operation, should be guarded by a piece of bladder; otherwise she may be salivated as well as the patient.

In the early stages of *Water in the Brain*, as inflammation then exists, the management should be the same as in Inflammation of the Brain. Everything in the form of diet should be of a farinaceous kind, and strictly fluid; although at a more advanced period, when the strength requires to be supported, beef-tea, artificial goats' milk, asses' milk, and similar substances, may be given. On no account should wine or any stimulant be administered without the orders of the physician. The treatment necessary when convalescence happily occurs shall be afterwards noticed. (See chapter on *Convalescence.)*

Inflammation of the Eyes (Ophthalmia) requires considerable attention on the part of the medical practitioner. The most severe variety is that which is termed Purulent Ophthalmia; and it is that variety which demands the most attention from nurses or other attendants in the sick-room.

When tepid applications, which are best adapted for the first stage, are ordered, they are

best applied by bending the head forward, and holding a flannel or sponge soaked in the warm fomentation close under the eyes: but when no medication of the water is ordered, it is better to hold the eyes over vessels of hot water, so that they may receive the warm aqueous vapour. Care must be taken, however, that the water is not too hot. Poultices invariably prove annoying.

When cold applications are ordered, after the inflammation is abated, they should be applied by laying a fold of soft, old linen across the eyes, with the ends hanging into a basin on each side of the head, as the patient lies with the back of his head on a pillow. The nurse should squeeze from a sponge the cold lotions upon this linen, interposing scarcely a minute between the moistenings. If this method be not adopted, reaction is likely to be induced, and harm to ensue. In slight cases of inflammation of the eyes, as the invalid is not required to be confined to bed, the moistened rag may be hung like a curtain before the eyes.

When a solution of nitrate of Silver, or the wine of Opium, or any other fluid, is ordered to be dropped into the eye, the liquid should be taken up with a quill, open at both ends. One end of the quill should be dipped into the liquid, and the forefinger be placed on the other end, so as to enable the liquid to be lifted and retained in the quill.

The eye-lids should next be opened, and the fluid projected between them by removing the finger from the end of the quill. The patient should then remain quiet, with the eye-lids closed, for half an hour.

When an escharotic ointment requires to be applied, and it is left to be done by the nurse, the purulent discharge should be first well cleaned out of the eyes by means of a wet sponge, and the ointment then rubbed on the everted eye-lids: but the ointment is usually, and should always be, applied by the surgeon. The application of sulphate of copper, or other simple escharotic, should never be attempted by a nurse nor any unprofessional attendant. I have witnessed much mischief result from the temerity of nurses attempting to apply them.

When the disease occurs in young children, and leeches are ordered, they should be applied on the cheek bone, at the edge of the socket of the eye, so as readily to command resisting pressure, if the bleeding should proceed farther than is required.

It is scarcely necessary to say, that, in every case of inflammation of the eyes, the light in the apartment of the invalid should be obscured, and no use made of the eyes in the first stage of the disease; but these precautions are unnecessary in the second.

In *Inflammation of the Tonsils*, or, as it is commonly termed, *Sore-Throat (Quinsy)*, when sufficiently severe to require confinement to the sick-room, the patient should be closely watched to prevent suffocation, if the swelling be great. Although gargles are usually ordered, yet they should not be too frequently used: indeed, steaming the throat, by holding the mouth over a jug of hot water, is preferable to gargling. When suppuration occurs, and emollient poultices are ordered, they should be applied on each side of the throat, but not on the centre of the neck. It is, however, requisite to follow strictly the directions of the physician. When the disease occurs in young children, the diet of the nurse should be changed to a farinaceous and vegetable one, and porter and every stimulant set aside.

In ulceration of the tonsils, or that disease which constitutes *putrid Sore-throat*, the treatment is materially modified. Either Hydrochloric Acid or a solution of Nitrate of Silver is likely to be ordered to be applied to the ulcers of the throat. It should be done by the practitioner: but as the application of it is sometimes left to the nurse or attendant, the method of applying it should be known. A piece of fine, soft sponge, fixed to a whale-bone or a wooden stalk, should be soaked in the strong acid, or the solution of the nitrate, and, the mouth being widely opened, so as to

allow the light to fall into it, and the tongue pressed with the handle of a spoon or a paper folder, the moist sponge should be pressed slightly upon the surfaces. If the false membrane, which forms upon the parts, be detached in twenty-four hours, the acid and the solution should be diluted for the subsequent applications. The general management of the sick-room, in both the foregoing diseases, is the same as in cases of continued fever.

There is another affection of the mouth, *Canker*, which, although not, strictly speaking, inflammatory, yet may be properly noticed here. It occurs most frequently during teething; rarely after seven years of age. The gums appear spongy, and quickly ulcerate; the tongue is white; the mouth hot, and discharging much acrid, corrosive saliva. In severe cases, the ulcers extend to the cheeks, become gangrenous, and exhale a very offensive odour; whilst irritative fever wears down the strength of the little sufferer.

Canker of the mouth is always dangerous, and often proves fatal in a few days; thence the necessity of procuring early medical advice. The domestic management is confined chiefly to the condition of the mouth, which should be frequently syringed with a mixture of three parts of Infusion of red Bark and one part of Solution of Chlorinated Soda; and the ulcers touched with a sponge,

moistened with a mixture of Hydrochloric Acid and Honey of Roses. The child should be laid on its side, with a piece of soft, dry sponge under the cheek, when it is placed for sleep. The strength must be supported by strong beef-tea, mixed with a greater or smaller proportion of sherry wine, as the nature of the case may require. The sick-room should be well ventilated, and kept at a temperature inferior to that of summer; indeed, when the weather will permit, the child should be carried into the open air.

Pleurisy, or inflammation of the lining membrane of the chest, is always a dangerous disease. It runs its course rapidly, and demands the most active treatment on the part of the physician; whilst the domestic management chiefly refers to the comfort of the invalid.

It is important to place the patient, in Pleurisy, in that position in which he breathes with the least pain, namely, on the side opposite to that in which the pain is fixed, or upon his back. If the pain has ceased, and effusion has succeeded, then the best position is that which was to be previously avoided—namely, upon the pained side of the chest; as by this means we favour the free play of the muscles of the unaffected side. The diet, and the temperature of the sick-room, should be the same as in the next disease.

Inflammation of the substance of the Lungs

(Pneumonia) is also a hazardous disease, and one in which relapses are not unfrequent in the progress of recovery: thence the necessity of the utmost caution, on the part of nurses and other attendants in the sick-room, in avoiding such causes as are likely to induce them; namely, exposure to cold, currents of air, or loud speaking.

It is scarcely necessary to urge a total abstinence from every solid form of diet; and to say that the diluents should be of the mildest description; such as barley-water, toast-water, lemonade, and rennet-whey. They may be given either cold or tepid, according to the inclination of the invalid; and it is only after the inflammatory symptoms have been subdued, that a different diet can be ventured upon with impunity. The temperature of the sick-room, which should, if possible, be ample and airy, ought not to be below nor above 60° of Faht. With respect to position, the shoulders of the invalid should be considerably raised, both to relieve the breathing and to diminish the gravitation of the blood to the lungs. Every muscular movement should be avoided, and the patient kept in a state of the utmost quietude.

When, instead of the substance of the lungs, the lining membrane of the nostrils, or of the air tubes, is slightly inflamed, causing what is called a *Catarrh* or a *Cold*, much less active measures, either medical or domestic, than are requisite in

the two former diseases, are usually demanded. One of the earliest measures to be taken on the first appearance of a Cold, is putting the feet and lower limbs into as hot water as the invalid can bear, immediately before getting into bed, and following this by a purgative next morning. Confinement to bed for a day or two, and starving, have great influence in curing a Cold; but if these measures do not succeed, medical advice must be obtained. The diet should be of a farinaceous character, and milk.

Croup is an inflammatory affection of the lining membrane of the windpipe. It usually attacks young children exposed to severe weather, and is distinguished from a common Cold by the harsh, ringing character of the cough, as if it had been uttered through a brazen trumpet; and a change in the sound of the voice, as if the throat were swelled. The drawing in of the breath is also productive of a wheezing noise, like air forced through a narrow tube, although the expiration is easy. The child complains of a choking sensation; the nostrils dilate; there is much fever; the countenance is flushed; the eye is bloodshot and tearful; and the sleep broken and disturbed. I have been thus particular in describing the early symptoms of Croup, that the disease may be instantly recognized; as no moment should be lost in procuring

medical advice. The disease, when fatal, runs its course in three or four days.

When Croup first displays itself, which frequently happens in the night, after the child has been asleep for some time, an emetic of Ipecacuanha should be instantly administered, and the physician be sent for; and, if he does not quickly arrive, the little invalid may be put into a tepid bath. As the disease usually occurs in winter, the temperature of the sick-room should be brought to 60° of Faht. If leeches be ordered, they should not be applied on the throat, but on the upper part of the sternum, in order to admit of pressure in staunching the bleeding. No interruption to the plan of treatment should be permitted on account of sickness caused by the medicines, unless so great a degree of sinking follows as to produce gasping, a cold surface, and failure of the pulse.

When a false membrane forms, it has been proposed to open the windpipe by an operation below the supposed affected part; but the disease is not confined to one spot; and, although the operation may prolong for a short time the life of the child, yet, it has never, in my experience, been productive of complete recovery: on the contrary, it has always been found unavailing. At the time at which the operation is warrantable,

" the bronchial tubes and the substance of the lungs are then the principal seat of the disease, and consequently the operation is futile, at least in children*." It is therefore one of the very few instances in which a parent may oppose the proposition of a medical practitioner. Every thing likely to prove beneficial must be done in the early stage of the disease.

Inflammation of the Stomach is too rare a disease to be noticed here: but *Inflammation of the Bowels* (Enteritis), on the contrary, is of frequent occurrence. It assumes a variety of forms, and appears with different degrees of intensity, depending on circumstances unnecessary to be mentioned in these pages. It occurs at every period of life. In children, it has often been mistaken for worms, and treated as such, with much hazard to the little patients: in adults it is more easily recognized.

In the treatment of this inflammatory affection, the general domestic management, which has been mentioned as proper in the inflammations we have already noticed, is necessary. Cold water, pure or acidulated, may be freely allowed; but, after the disease has run on for five or six days, fari-

* See *Liston's Elements of Surgery*, 2nd edit. p. 440. This distinguished surgeon adds—" from my own experience I cannot recommend the practice."

naceous preparations, weak chicken broth, and milk diluted with water, are required to prop the strength of the patient. The quantity given at a time should be small; but it should be repeated every third or fourth hour. Wine must never be given, unless directed by the physician. The sick-room should be kept at a summer temperature; and the extremities of the invalid kept warm. The back, on which the invalid always lies, should be daily examined, to prevent excoriations from taking place there.

It is often difficult to stop the bleeding from leech bites, when the leeches are applied to the belly, in children. In such a case, if the medical attendant cannot be soon fetched, the bites should be touched with a stick of nitrate of silver, scraped down to a fine point, which should be pressed to the bottom of the wound, turned two or three times, and then withdrawn. If fomentations be ordered, much care is requisite in their application, according to the method afterwards detailed. (See *Fomentations*.)

In the disease technically called *Peritonitis*, but commonly, also, termed *Inflammation of the Bowels*, the inflammation is not confined to the bowels, but is seated in the lining membrane of the cavity of the belly, which also invests the intestines. It is indicated by pain and extreme tenderness on pressure. Under such circumstances, no delay

should take place in procuring the advice of a medical practitioner. The disease attacks all ages: its course is rapid, and the danger always threatening.

When the disease attacks infants, and leeches are ordered, they should not be applied on the belly, but on the wrist, where the bleeding can be easily controlled. The propriety of removing the child from the breast has been suggested by some physicians; but we have seen it add to the danger of the attack. When the child is not at the breast, the strength should be moderately supported by farinaceous preparations, and weak chicken tea; and the warm bath employed. In adult patients, the same attention to a purely unstimulating diet must be observed, unless otherwise directed by the physician: and in no inflammatory affection is so much attention requisite to prevent relapse, when recovery happily commences. When the disease is of a chronic character, every degree of pressure on the belly, and all muscular exertion, should be avoided.

Gout, although a malady preceded by many symptoms which indicate its approach, yet, is seldom noticed until the attack is fully developed, and the local inflammation, either in the great toe, or in some other part of the feet, or the hands, affords unquestionable demonstration of its presence. It is unnecessary, for our purpose, to notice the

various forms which the disease assumes; or to enter into the question with regard to its hereditary predisposition. It seldom appears before twenty years of age, or after sixty, for the first time.

Let us suppose that a young individual, susceptible to Gout, from hereditary predisposition, or plethora induced by over-indulgence, or sedentary habits, or other causes, has, by exposure to damp, or from an act of intemperance, acquired Gout, and that the invalid is laid up, and suffering the torture of the local inflammation attendant on a first attack of the regular form of the disease. The primary object is to confine him to bed, in a cool, well-ventilated room, and to manage the fever, and the restlessness attending it, in the same manner as continued fever, without reference to any peculiarity in the disease. It is too common a practice, in Gout, to slight the directions of the physician; and either to trust to patience and flannel, or to have recourse to some empirical specific. Nothing is more reprehensible; and it cannot be too generally known that Gout is as much under the control of medicines as any other disease. The first duty of a nurse, or an attendant in the sick-room, is to follow strictly the injunctions of the doctor.

If Colchicum be ordered, its activity as a purgative, as well as its soothing influence as an anodyne, is highly advantageous in strong, robust habits,

but when the invalid has little vigour of constitution, the purgative influence of the remedy should not be allowed to proceed far, without intimation of this effect being communicated to the physician.

In a regular fit of Gout, a variety of applications, according to the views of the practitioner, may be ordered to the inflamed part: but we have no hesitation in saying that little advantage is derived from any of them; and on some occasions they have proved hurtful. The limb should be kept as much at rest as possible, and the bed clothes supported over it. The diet should be mild and spare; barley-water and rennet-whey may be freely administered; but wine must be interdicted. The mind of the invalid should not only be kept free from irritation, but that degree of irritability which is always an attendant on the attack should be soothed by every possible means. Thence the necessity of patience and good sense in the attendant in the sick-room.

In old people, and in those of a naturally delicate constitution, who are predisposed to Gout, the disease assumes an atonic form, and little or no inflammation affects the joints. In such a case, the means necessary to be pursued in the young and the vigorous are not indicated; but, on the contrary, animal food, and a moderate allowance of the least acescent wines, are to be permitted.

If, from any cause, the disease should retro-

cede,—that is, should leave the extremities and attack some vital organ,—it must be treated according to the nature of the part attacked. If it be the stomach, which is known by violent pain in that organ, sickness, and a peculiar sensation of coldness at the pit of the stomach, a glassful of hot brandy should be immediately administered, and the physician, as soon as possible, informed of the circumstance. A mustard cataplasm, or a rag dipped in strong solution of Ammonia, or of the vinegar of Spanish flies, may be at the same time applied externally. In every attack of Gout, the management of the convalescence is of the utmost importance. (See the chapter on *Convalescence.)*

Rheumatism is, in many respects, nearly allied to Gout; being "an active fever, accompanied with local inflammation of one or more joints." It chiefly attacks the vigorous and the plethoric; but it is erroneous to suppose that Rheumatism does not imply previous bad health. There is an hereditary predisposition to the disease; and, in every instance, a state of plethora, either absolute or relative, is necessary to be present, before the exciting causes,—namely, cold and damp weather, currents of air, and damp clothes or sheets, —can produce the disease. It attacks persons at every period of life; and, when the attack is severe, confinement to bed is requisite; thence, its domestic management belongs to our subject.

Besides the active remedial measures which are requisite, abstinence must be strictly maintained, until the inflammatory symptoms are subdued; and the return to ordinary food must be slow, even after that is effected. The best diet, during the active part of the treatment, is barley-water, and such like; and, as recovery approaches, beef-tea, and other weak animal broths. The sick-room should be kept cool, and the bed-clothes supported over the pained joints. If Colchicum be ordered, the same attention to its purgative effect is requisite in Rheumatism as in Gout.

It is important to enforce the danger of employing repellent liniments, and other topical applications, in acute Rheumatism. Although they relieve the pain of an affected joint, yet the inflammation thus repelled may fix upon the heart, or the lungs, or the brain, and even, although less frequently than in Gout, upon the stomach. Two young ladies, labouring under acute Rheumatism, affecting the knee of the right leg in one, and the wrists of both arms in the other, were persuaded to use Whitehead's Essence of Mustard. The affected joints were relieved in both instances; but the heart was affected in the one, and the lungs in the other; and both fell victims to the disease. Under no circumstances, indeed, are topical applications, except leeches, safe in the acute form of Rheumatism: they may prove useful

in the chronic disease: but, even then, they should not be employed, except under the authority of the physician. When the swelling of the joints remains after the other symptoms have abated, the mode of applying the warm douche with percussion by an Indian-rubber hammer (see chapter fourth) should be employed, and continued, daily, for a considerable time.

Another inflammatory affection, displaying its effects in the lower extremities, namely, *Swelled Leg*, must not be overlooked. The inflammation in this disease affects the coats of the veins carrying the blood upwards from one or other leg. It occurs most frequently in women who have been confined, or are about to be confined, in child-bed: but, sometimes, it appears at other periods; and, occasionally, in the opposite sex*. The limb swells, the enlargement commencing in the thigh and proceeding downwards. There is much pain, but scarcely any redness; on the contrary, the leg looks white, smooth, and shining; the power of movement is suspended, and there is much fever.

Leeches are always ordered, and the bleeding should be kept up by poultices; but they should not be applied too hot. If lotions be prescribed,

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* I have treated three cases of it in men: one was a gouty subject; the two others had no particular complaint, but had been exposed to cold.

they may be applied either cold or tepid, as the invalid feels most agreeable. When the inflammation and pain subside, frictions are frequently employed; in which case, it should be known that less of the benefit depends on the liniment than on the friction. The rubbing should be with the points of the fingers, in quick, short, successive strokes, without bearing forcibly upon the part; and, after each operation, the whole limb should be encased in oiled silk. Complete rest of the diseased limb is essential. The same general management, as in other inflammations, is requisite.

The last disease of an inflammatory character which requires to be noticed here, is *Dysentery*. The inflammation, which is chiefly confined to the lower portion of the great intestine, often terminates in ulceration, and proves fatal; but this is rarely the case in the ordinary Dysentery of temperate climates. The most distressing symptom is a constant desire to go to the night-chair, (*tenesmus*), with the evacuation of small quantities of mucus, tinged with blood. Our management refers to the Dysentery of this climate, in its uncomplicated form.

Whatever may have been the cause, and whatever form the attack assumes, much depends on the management of the sick-room. Every evacuation should be instantly removed, and the apartment kept sweet by free ventilation, and the

Chloride of Lime sprinkled over the floor, or mixed with water, in a flat dish, and placed at a moderate distance from the bed. Both the sheets and the body linen of the invalid should be changed every morning. When the *tenesmus* is considerable, and emollient glysters are ordered for its relief, the quantity of fluid should be small, not exceeding five or six ounces. No glyster is preferable to that proposed by an East Indian Practitioner*: it is composed of ten or twelve grains of the powder of Ipecacuanha, ten grains of Extract of Gentian, and four ounces of water.

The belly ought to be swathed with a broad flannel bandage; and the diet, throughout the disease, should be purely farinaceous; namely, arrow-root, mucilage, rice-gruel, and barley-water. The quantity given at a time should be small; and the whole amount administered in twenty-four hours should be very moderate.

3. *Hæmorrhages — Spontaneous Bleedings.*— These bleedings are generally, but erroneously, referred to the bursting of a blood-vessel: they most commonly proceed from the exhalation of blood from the coats of blood-vessels; yet the quantity of blood lost is often so great that fatal effects issue. It is unnecessary for our purpose to investigate the causes of such spontaneous bleed-

* Mr. Twining.

ings; but it should be known that the treatment of them, whether medical or domestic, necessarily differs according as the individual is young, robust, and a free liver; or as he is naturally delicate, enfeebled by disease, defective nourishment, or depressed passions; or, in technical phraseology, as the Hæmorrhage is active or passive.

Now, let us suppose a case of *Bleeding from the Nose* (*Epistaxis*) in an aged person; for in boys and young men it seldom requires any attention—indeed it is often an effort of Nature to relieve that state of fulness of the vessels of the head which induces headach. It is the business of the physician to discover the disease of which the bleeding of the nose is a symptom: but, before he arrives, the loss of blood may be temporarily stayed by dashing cold water on the face, or applying cold by any means to the nape of the neck or between the shoulders. The old custom of putting a large, cold key down the back, has proved beneficial. The air of the apartment should be kept cool; and the head of the invalid elevated as he sits in bed.

If, instead of flowing from the nostrils, the blood is discharged from the lungs, by coughing, constituting *Spitting of Blood* (*Hæmoptysis*), much alarm, and not without reason, is always excited. It is sometimes difficult to ascertain, at first, whether the blood proceeds from the lungs or from the

stomach; for when the former is its source, some of the blood, passing into the lungs, causes vomiting, and is ejected with the contents of the stomach. But the determination of the source of the blood is of little consequence, as the management is the same in both cases. It is often symptomatic, and an indication of the existence of tubercular Consumption; and, as it were, ushers in the disease.

On the very first appearance of *Spitting of Blood*, medical assistance should be obtained. The invalid should be seated nearly erect in bed, with the bosom bared, and cold water or ice applied to it, keeping the lower extremities, at the same time, warm. He should not be permitted to speak, and should sip cold or iced-water almost without intermission, swallowing it as slowly as possible. If clean ice can be procured, a small piece of it held in the mouth, and the fluid, as it forms by the solution of the ice, swallowed slowly, is preferable to the iced-water. The temperature of the sick-room should, if possible, be reduced under 40°, and kept at that point. No food of any description should be taken until the spitting of blood stops. The attack always, more or less, causes much nervous agitation in the invalid, an effect which ought not to be encouraged by any display of alarm in the countenances of those about him: indeed, the utmost self-possession is re-

quired in the attendants of the sick-room; so that the spirits of the sufferer may be sustained; nothing tending more to enable the habit to bear the loss of blood than moral courage.

When *Vomiting of Blood* occurs, which is rare in the male sex, it always excites alarm; but it is much less to be dreaded in the female sex; and, in both, it is less hazardous than when the blood comes from the lungs. The domestic management so far differs from that necessary for spitting blood, that the invalid, instead of being placed erect, should be laid in the horizontal position; but the same tranquillity of mind, light coverings, and state of the sick-room, must be observed. Cold liquids, and lemonade, containing three or four grains of Nitre in a table-spoonful of the liquid, should be frequently given, in quantities not exceeding a desert-spoonful. When the vomiting ceases, the horizontal position, and the strictest attention to diet, must be observed for some days afterwards. The bowels should not be allowed to be in a costive state, even after the convalescence is fairly established

When blood is passed by *stool*, there is always considerable danger. The same domestic management is required as in vomiting of blood; and the same caution observed after the discharge of blood ceases. It is of some importance to ascertain, however, whether blood, passed at stool, does not

proceed from piles. This is easily determined by an unprofessional person, by the simple appearance of the blood, which is black, and mixed with fæces, when it comes from the intestines themselves; but thin, florid, and unmixed with fæces, when it is discharged from piles. As this discharge of blood from piles is often salutary, it should not be checked; and, under no circumstances, ought anything to be done with that intention except by medical advice. When the bleeding is only occasional, or when the bowels are confined, nothing is more serviceable, both in preventing costiveness from occurring, and also in warding off the pain, than a nightly dose of magnesia and sulphur in equal proportions; and the daily application of cold water to the parts.

Flooding, when it is considerable and obstinate, is always alarming. It may arise from a variety of causes; and, consequently, ought never to be treated by unprofessional persons. The same attention to rest, quiet, spare diet, and "every application and medicine, actually or potentially cold," is requisite in this as in other cases of a considerable spontaneous flow of blood.

CHAPTER III.

DOMESTIC MANAGEMENT IN DISEASES AFFECTING THE NERVOUS SYSTEM—IN DISEASES OF DEPRAVED SECRETION.

4. *Nervous diseases*, in the general acceptation of the term, involve those morbid conditions of the habit in which either sensation or volition, or both, are preternaturally affected: they also comprehend deranged exercise of the intellectual faculties. Those only which require confinement to the sick-room demand notice in these pages.

Apoplexy, in its severest form, is a sudden and violent deprivation of sensation, volition, and thought, whilst the circulation of the blood and the function of breathing continue: but these effects are only partial in slight attacks. It occurs at every period of life above childhood; is more frequent in men than in women; and seems to depend on blood effused into the substance of the brain, or on serous fluid into the natural cavities of that organ; the result of a great variety of causes, which it is foreign to our purpose to investigate. It is always a dangerous disease, and requires the immediate attention of the physician. Whatever may be the causes of the disease, whatever its

medical treatment, the domestic management is nearly the same in all.

Let us now suppose that a person has fallen down in a fit of Apoplexy. The first object, after despatching a messenger for the *nearest* medical assistance, is to loosen the stock or neckerchief, and the shirt collar, and to place the body in a nearly sitting position; whilst, at the same time, air is freely admitted to the face. If the attack occurs in a room, the freest ventilation should be secured, by opening all the windows. If it has taken place during, or after, a full meal, vomiting should be instantly induced, by introducing a finger into the mouth and irritating the throat, before medical assistance arrives: and, during the interval, which elapses between sending for the doctor and his arrival, materials for blood-letting should be in readiness, in case that operation be required. A stream of cold water may, also, be poured on the head in this interval.

When the attack does not prove fatal, and the power of deglutition returns, the diet should be purely of a farinaceous kind; and, even when the convalescence is secured, a total abstinence from animal food and fermented liquors of every kind, and spirits, should be strictly observed for a long time afterwards. The diet, indeed, during the remainder of life, should be of a vegetable description; or, if any animal substance be admissi-

ble, it should be milk, or an occasional moderate allowance of fish or of poultry. The head should be kept shaved, and daily sponged with cold water. Nothing tight should be worn round the neck; the bowels ought to be relieved twice a day; and regular exercise taken in the open air.

Palsy may be the result of Apoplexy, when it does not prove fatal; but it may depend on many other causes. It may consist either in a partial or nearly general loss of *sensation*, or of *motion*, or of both these important functions. The loss of sensation is generally more partial than the loss of motion, usually affecting one organ only; for example, the eyelids, the face, or only an arm. Paralysis of motion most commonly affects one side of the body, including both the leg and the arm of the affected side. It is much less likely to prove fatal than Apoplexy.

Whatever may be the medical treatment pursued, Paralytics require the same rigid abstinence from animal food, and all stimulating fluids, as Apoplectics. Mental repose, and freedom from the cares of business, and from every anxiety, are indispensable. If perpetual blisters, or setons, or issues, be ordered, they must be daily dressed, in the manner described in the fourth chapter; the object being to maintain counter-irritation, which can only be effectually done by a proper management of the irritating agent. Dry friction with

hair gloves, with or without the aid of stimulating liniments, should be employed twice every day; and it is preferable that it should be done, when that is possible, by the invalid himself. When electricity is recommended, patients are generally impatient under its employment, if its beneficial influence be not quickly obvious: but it should be known that little is to be expected from electricity, in any form of applying it, unless it be continued for a very considerable length of time. The electrification of the invalid on an isolated seat, or what is called the *electrical bath*, should be first employed; then *sparks* taken; and ultimately *shocks* passed through the paralysed members, in the direct course of the nerves.

Convulsions imply violent involuntary muscular contractions, with alternate relaxations. They are mostly symptomatic of, or attendant on, other diseases; and are both *partial* and *general:* occasionally they display themselves without any obvious connection with other diseased states of the habit. It has been well remarked that "mental emotions may be considered among the most powerful causes of Convulsions, particularly when operating on the sensitive minds of children*." Sudden fright, great anxiety, loss of sleep, and

* Dr. Adair Crawford—*Cyclopædia of Practical Medicine*, vol. i. p. 473.

the power of imagination, are causes of Convulsions. Religious zealots frequently work themselves into them; and the use of stimulants, by those unaccustomed to them, is often a cause of Convulsions. They, also, occasionally arise from imitation; and they are much under the influence of habit.

The medical treatment of Convulsions varies considerably, according to the natural habits of the invalids, and the exciting causes of the attacks: it is much assisted by the domestic management.

When the head is ordered to be kept cool by evaporating lotions, or by Macintosh's pillow, the extremities should be kept warm. The regulation of diet also is most important; as the attack not only frequently arises from, but is kept up by, the stomach and bowels being in a disordered or in an irritable state. The mind should be preserved as composed as possible; and, in the intervals of the convulsive attacks, nothing is of more importance than to withdraw the attention of the patient from his personal feelings. When habit has had some influence in keeping up the disease, it should be broken, either by some powerful impression made upon the mind of the invalid, adequate to occupy his entire attention at the time the Convulsions usually recur; or, by a strong, sudden effort of the will of the invalid himself. Nothing is more misplaced, nor worse, than sympathy in

such cases, as it fosters that condition of the nervous system in which its susceptibility is morbidly exalted.

Hysteria is so proteform a disease as to defy definition: but it is that variety of it which attacks females of a peculiar constitution, and constitutes what is termed *Hysterics*, to which we have to direct our attention. The most striking characteristic is acute pain of the left side, accompanied with a sensation of a globe rising into the throat, and a temporary loss of volition; so that the body either remains motionless, or the muscles are thrown into involuntary movements, producing violent and irregular spasmodic action, and strugglings, with alternate fits of wild laughter, screaming, and delirium. The hands are raised to the throat, as if the patient were in the act of suffocation; the head is beaten against the floor, or whatever is near it; the arms are flung about; and the poor unconscious sufferer either bites herself or those who are attending on her. The paroxysm varies in length from a quarter of an hour to several hours; and it terminates often by a flood of tears, or a burst of laughter, or a wild scream, as of amazement; and then the invalid sinks, exhausted, into a state of quietude, from which she rises with a feeling of fatigue and a headach. I have been thus particular in the description of the hysteric paroxysm, in order

that it may be readily recognized; but, at the same time, it should be understood that it is susceptible of the greatest modification of character, and is capable of simulating almost every known disease.

Notwithstanding the violence of the ordinary hysterical paroxysm, it is scarcely in any instance attended with danger. It is more common in single than in married women, and it generally appears between the ages of sixteen and thirty-five. It occasionally, but very rarely, attacks the male sex.

Whatever may be the predisposing condition of the habit, or the immediate cause of the disease, the exciting causes are chiefly those which debilitate the frame, or which disturb the periodical changes incident to the female constitution. Mental impressions,—namely, anger, terror, great surprise, grief, are, also, exciting causes of Hysterics. Even the representation of the more agitating passions on the stage, or witnessing a fit of Hysterics in another, will sometimes produce an attack.

Several instances, illustrative of the proneness to, and the influence of imitation in causing Hysterics, have been already mentioned*. I may here state, that it is by no means uncommon for ladies' maids to become hysterical when their

* See note, pages 63 and 65.

mistresses are so; and this without affectation or any desire to impose. The Zetlanders, especially the young unmarried women, are liable to a convulsive disease, closely resembling Hysterics; and, when one is attacked, whether at church, or in the market, or in any place where many persons are assembled, all those who have already suffered from the disease, are again attacked; and many who have never had it are, for the first time, similarly affected. I have seen several instances of the force of imitation in causing Hysterics, in boarding schools.

From all that has been said, there can be no difficulty in comprehending that there is either a natural or an acquired excessive susceptibility of the nervous system, which predisposes to this malady. The result is irregular actions, which are excited by external impressions, visceral irritations, and mental emotions, which would scarcely be perceived in a more healthful condition of the system; thence the Hysterical paroxysm appears whenever these exciting causes are applied. I am anxious to impress this truth upon the minds of parents, as much may be effected by education in modifying original organization.

During the paroxysm of Hysteria, nothing is required from the medical attendant which cannot be as well performed by relations or those about the patient. The chief object is to prevent injury

to the invalid from the convulsive movements, and to adopt measures to shorten the paroxysm. The restraints employed should be such as are adapted to prevent the tongue from being bitten, by putting a napkin folded between the teeth, or to guard the head from being struck against any hard substance. All tight articles of dress, especially about the neck or the chest, should be loosened, as already stated*; and cold water be dashed upon the face and breast; or towels wrung out of cold water applied to the forehead; whilst the feet are rolled in hot flannels. When the spasms are very rigid, a glyster, composed of half a pint of gruel, and an ounce of oil of turpentine, is often very beneficial. If the consciousness be not wholly suspended, those who are about the patient should kindly, but firmly, urge her to exert her own power of self-control, to overcome the paroxysm.

To ward off the paroxysm, also, the patient should be induced to try every means to oppose its approach, by a voluntary effort; which, when seriously exerted, is almost always successful. The shower-bath, sponging with salt and water, friction with hair-gloves, and early rising to take exercise and inhale the pure, balmy breezes of morning, will greatly aid these efforts. Soft beds, sedentary occupations, warm, ill-ventilated bed-

* See page 65.

rooms, are to be strictly avoided. The injurious influence of luxurious indulgence, and pampered appetite, is well illustrated by their effects on the *pets* of the Woman of Fashion, as well as on herself and her Abigail. "Singing-birds and lap-dogs, which are confined and highly fed, are subject," says Dr. Parry, "to the whole train of nervous affections; as palpitations of the heart, breathlessness on slight motion, hysteria, convulsions, epilepsy, hemiplegia *(palsy of one side)*, and apoplexy*." Porter, ale, or any fermented liquors, seldom agree with the stomachs of the Hysterical, who are better without stimulants; but, if any be thought requisite, the best is a glass of good Sherry in a tumbler of water. Under every circumstance, the utmost attention is necessary to regulate the bowels. The importance of having the mind fully occupied, in Hysterical individuals, has been already noticed.

In the preventive treatment of Hysterics, everything which can augment morbid nervous sensibility must be avoided. Even the most necessary, and, to the good, the most agreeable duty of a woman—namely, that of nursing her progeny—is not admissible; the hysterical state disturbing the secretion of the milk, and disordering the child's bowels.

It is incompatible with the object of this little

* Elements of Pathology and Therapeutics, vol. ii.

volume to enter into all the details connected with this important subject; they are so interwoven with the customs of society, that the physician cannot control them; and so amalgamated with our habits, that against them the moralist may declaim in vain.

During the paroxysm of *Epilepsy*, the less that is attempted the better: it is a disease which should be left solely in the hands of the physician. The same remark is applicable to *St. Vitus' Dance*, in reference to its medical treatment, with which no interference should be permitted.

The other spasmodic affections which require to be noticed are not accompanied with convulsions, except when Asthma is simulated by Hysteria, which occasionally happens.

Asthma is generally regarded to be of two kinds—namely, *nervous* and *catarrhal*. The former is most frequently symptomatic of some other disease; the latter is that which is most common, and which, both during the *paroxysm* and in the *interval*, demands much domestic management in aid of the medical treatment.

No person can witness a paroxysm of *Asthma*—the sense of weight, and constriction of the chest, with the gasping of the invalid for breath; the wheezing on every effort to fill the lungs with air; the starting up in bed, and making signs to throw open the windows and doors to obtain it;

and the painful appearance as if life was about to be instantly terminated by suffocation—without feeling strongly the necessity of procuring the sufferer as speedy relief as possible.

Independent of the medical treatment, which should be left to the physician, the first thing to be done, at the commencement of the attack, is to place the feet of the invalid in hot water, and to dilute freely with warm fluids; but, if these means be delayed until the paroxysm is fairly formed, they will be productive of no benefit. The windows of the room should be opened, and a cup of strong coffee administered, and repeated every half hour, until the paroxysm gives way, and expectoration is produced; an effect which is accelerated by smoking dried Stramonium, in the same manner as Tobacco. But it is in the intervals of the paroxysms that both the medical treatment and the domestic management is likely to prove most beneficial. In reference to the latter, nothing is more likely to confirm Asthma than confinement to the sick-room; on the contrary, the tepid salt-water shower-bath, cooled down by degrees, until it can be taken quite cold, should be used every morning, in all seasons, immediately on getting out of bed; and be followed by brisk friction, with hair-gloves, over the whole of the body. Exercise in the open air should be taken, in every kind of weather, and the best means,

both medicinal and dietetical, adopted, to augment the tone and vigour of the system. The diet should be moderate, and of a dry kind: the bed of the invalid ought to be a firm mattress, the coverings light, and there should be no curtains. Self-indulgence, in all its protean forms, must be combated by the Asthmatic, before any hope of cure or even temporary relief can be expected.

There is a disease which resembles Asthma, occurring in young children, but which is, in fact, a variety of Croup, and requires to be regarded as such, both in reference to its medical treatment and its domestic management.

Hooping-cough may appear either in the simple spasmodic form of the disease, or it may be complicated with inflammatory affections of the chest, the bowels, the head; or with convulsions; circumstances, however, which, although they necessarily greatly influence the medical treatment, yet very little affect the domestic management. It may occur at any age; but it is most common in childhood. In the simple and mildest form of the disease, little more is requisite than an occasional emetic, the regulation of the bowels, and the confinement of the invalid to an equable summer temperature, and a milk and vegetable diet. The child should also be clothed in flannel, if the disease occurs in autumn or in winter, and he ought to be confined to one or two rooms.

These measures are intended to prevent any inflammatory attack of the lungs; but, if that already exists, the invalid should be confined to bed; and, in conjunction with active medical measures, the strictest abstinence must be enjoined, until the inflammatory symptoms yield. In very young children, and in infants at the breast, the utmost caution is requisite to secure the discharge of the phlegm from the mouth every time the child coughs; and, when there is no other indication to be fulfilled by emetics, the expulsion of the phlegm is sufficient to require their administration. Infants should be leaned forwards whenever they cough. In the convalescence, a milk and vegetable diet should be persisted in for some time after the cough abates; and, when the frame is delicate, Asses' or Goats' milk should be taken every morning. The same diet is requisite whatever may be the age of the patient.

In no disease have such a multiplicity of Specifics, both for internal administration and external application, been proposed as in Hooping-cough: every Nurse has her remedy, and is ready to enforce its infallibility; but, whilst all of them are unnecessary in the mild and simple form of the disease, many of them are dangerous in several of its complications. When the attack requires more than domestic management, the Physician ought to be consulted.

After the disease is cured, the cough sometimes obstinately remains from the influence of habit: under which circumstances, moral means often have the most powerful curative influence. The author knew an instance in which, after every other remedial measure had failed, the patient, a boy of ten years of age, was threatened with the application of a blister, a foot square, upon the chest; and that instrument of torture having been actually made and placed on the chimney-piece, in sight of the invalid, he had no fit of coughing from that time forward.

It only remains to notice, under the head of nervous diseases, those affecting the intellectual faculties—namely, *Hypochondriasis* and *Insanity*.

The brief remarks which have been already made (pages 58, 60) respecting the former of these diseases, leave little to be now added regarding its domestic management. In general, Hypochondriacs are more or less their own physicians: numberless remedies are tried; and confinement to the sick-room, nursing all the erroneous opinions which the unhappy sufferers have adopted, is persisted in, until the disease has acquired an almost unmoveable hold upon the constitution. But, although he is his own Physician, yet the Hypochondriac does not follow the advice of Montanus: "Fuge medicos et medicamenta, facileque convalesces;" he not only pursues his own

plans, but he applies to every new doctor who is recommended to him, and nothing delights him more than a new medicine. Under such circumstances, the chief object, as already stated, is to withdraw the attention of the invalid from himself, by interesting his mind with new objects. The most effectual mode of accomplishing this is travelling; but, when this plan of treatment cannot be adopted, or when he cannot be removed from the sick-room, friction should be employed over the whole of the body, twice a day, with hair-gloves; and his mind engaged, by conversation or any other means, from dwelling upon his personal feelings. The bed of the Hypochondriac should be a firm hair mattress. His hours of sleep should be regular; he should retire early to bed, and never be permitted to remain in it after he awakes in the morning. The utmost kindness which can be bestowed upon him is to prevent him from sinking into inactivity, or becoming an inmate of the sick-room.

Although Hypochondriacs have many illusions, and their disease seems to border on Insanity, yet the two diseases materially differ; and it is of general importance to distinguish them. This is readily done by observing that the Hypochondriac does not believe in the real nature of his illusions: his apprehensions are all connected with the state of his bodily health; and he dreads death. The Insane, on the contrary, believes in the illu-

sions that pass through his diseased brain: if melancholy, he views all connected with his present condition in life, and still more the future, through the darkest medium of doubt and despondency; and, instead of fearing death, he courts the dart of the arch enemy; and impatience and desperate suicide are the result. When Hypochondriasm proceeds beyond a certain point, and the Hypochondriac begins to have faith in his illusions—for example, when he believes that he is made of glass, or of butter, or that his body is too large to pass through an ordinary door—his disease has then changed its character; he is no longer a Hypochondriac, but a Lunatic, and he must be treated as such; but this conversion of the one disease into the other is of rare occurrence.

In many instances, *Insanity* assumes such a form that domestic or moral, rather than medical, treatment is required; and the patient, instead of being placed in a Lunatic Asylum, remains with his family or relatives.

It is not the intention of these pages to advocate the propriety of keeping insane patients at home. It is undoubtedly of much importance, in every case of Insanity, to break, by new objects and habits, the train of diseased associations which has laid hold of the mind; and to withdraw the Lunatic from those friends whom he erroneously believes

are conspiring against him. "Very often," says Monsieur Esquirol, "the origin of mental derangement is to be found in domestic causes. The malady takes its rise from chagrins, from family dissensions, from reverses of fortune, privations, &c.; and the presence of relations and friends increases the evil, often without their suspecting that they are the first cause of it. Sometimes an excess of tenderness seizes the patient: a husband persuades himself that he cannot make his wife happy; he forms the resolution of dying for her, and threatens to put an end to his existence, since it would be the only means of securing her happiness. Her tears, her melancholy countenance, are so many reasons for persuading this unfortunate person that he can do nothing better than commit suicide."

The hatred of the Insane, also, is generally awakened against those who, before their insanity, possessed their warmest affection. When such an unfortunate feeling possesses the mind, home is generally the worst place for the Insane; whilst, on the contrary, the presence of strangers tends to suspend their delirium, and to disturb the hallucinations under which they are labouring. On this account, there is only one opinion among physicians of the propriety of removing the Insane from home, and placing them in situations where they are carefully looked after,

and prevented from injuring either themselves or others. These facts and arguments are conclusive; but, nevertheless, many persons in this unhappy state remain at home: thence it is requisite that those about them should understand the principles which ought to direct the moral management of the Insane.

The attendant on the Insane should be firm but not harsh in his manner, and should possess discretion enough never to revert to the causes or objects which are supposed to have developed the disease; nor to flatter the exalted ideas which the Lunatic often entertains of his situation in society. To reason with the Insane, in order to convince them of the errors connected with their disease, is not only useless, but it often proves deleterious. Opposition, contradiction, argumentation, irritate them, and cause them to hate and defy those placed over them.

Although it is difficult to engage the attention of the Insane to any particular occupation, yet it should always be attempted. Whatever can divert the mind from their diseased feelings tends to break the catenation of symptoms which constitutes the disease.

No rule is more important in the management of the Insane than that which enforces an unremitting watchfulness over them. Suicide may, when least expected, be the consequence of neg-

lecting this rule; and that event is especially more likely to happen when the disease is connected with religious enthusiasm.

A young lady, predisposed to Insanity, had taken a strong religious bias, and believed that she was forsaken by the Almighty. Her mother, with whom she lived, was cautioned never to leave her a moment alone: but, from her confidence that her daughter's religious feeling was perfectly adequate to preserve her from self-murder, the unhappy girl was permitted to sleep alone, in a room adjoining her mother's. One morning I was sent for at an early hour, but my presence was of no avail; my patient had been found, in the morning, suspended by the sheet to the bed-frame, and completely dead.

There is one species of Insanity, namely, that which occurs after child-birth, which seldom requires to be sent to a Lunatic Asylum; but, nevertheless, the individuals labouring under it should be separated from their relatives and friends, and carefully attended by females qualified as keepers.

The probability of recovery in Insanity should be generally known; and the influence of age and sex upon that event. Recovery is more frequent than is generally supposed; the average proportion may be stated as one in two and a half, a fact sufficient to set aside the usual opinion,

that a person who is mad must always remain in that state: on the contrary, when the disease is not hereditary, nor complicated with other maladies—and when the insane person is not of advanced age, nor idiotic, nor epileptic, nor paralytic —the probability is in favour of recovery. The protraction of the disease must not be regarded as positively opposing the expectation of this desirable event. M. Baumes has recorded the case of "a lady who passed twenty-five years in a state of lunacy, within the knowledge of the whole country where she lived, and who suddenly recovered her reason." It is, nevertheless, true, that the greater number of recoveries take place at an early period of the disease. It is also necessary to extend generally the knowledge of the fact, that the recoveries from madness are frequently complete. The writer has known instances of men in great commercial concerns, Lawyers, and Divines, who have been mad, and yet have returned into society capable of conducting the most complicated affairs, and performing the duties of their professions as well as before they were insane. The recoveries are also in the ratio of the youth of the insane. They are more frequent in the men than in women, probably owing to the same cause which renders the disease more frequent among women than among men. Among the patients admitted into Bethlem Hos-

pital, in forty-six years, the proportion between the sexes was the following: 4832 females, 4042 males; in St. Luke's, according to the report of a Committee of the House of Commons in 1807, the females were one third more numerous than the males; and in France, according to Pinel, the proportion is two to one. The statistical reports demonstrate that celibacy is favourable to insanity. According to M. Despartes, out of 1726 female lunatics, 980 were single women, 291 were widows, 397 were married: out of 764 males, 492 were batchelors, 59 were widowers, and 202 were married. It is also a curious fact, that more persons become insane in summer than in winter. It would be out of place here to enter further into the nature of the causes or of the symptoms of Insanity.

The description of persons proper as attendants on the insane, and the necessity of closely watching the unfortunate patients, have been already noticed: the domestic management, when the case requires confinement to the sick-room, remains to be detailed.

When the patient is violent, and ice or cold water is ordered to be applied to the head, the same plan is to be adopted as in Continued Fever. In reference to diet in Insanity, much depends on the nature of the particular case; but, in a general point of view, it should be much more

liberal and more stimulant than in other affections in which the brain is involved; and even a moderate allowance of malt liquor or of wine is necessary.

With respect to the moral management, it should be impressed upon the friends and relations of the insane that attempts to reason with them, or to convince them that their hallucinations are the result of mental derangement, will not only be abortive, but may probably prove hurtful. If a Lunatic is not placed in an Asylum, or otherwise taken from home, he should be separated from the rest of the family, and the utmost pains be taken to break all his old habits and associations. He should see only new faces: new objects must be presented to him; and everything that can recal former ideas withheld. "The presence of strangers," justly remarks M. Esquirol, "suspends the delirium of the insane, either by the influence of new impressions, which is always useful, or from a secret feeling of self-love, which induces Lunatics to conceal their state of mind. I have seen patients appear quite calm before their physicians and strangers, while they were, at the same time, abusing their relations or their friends in an under voice." It ought also to be known that, should the unfortunate Lunatic feel distressed when, on being removed to a Lunatic Asylum, he finds that he is surrounded by madmen, this

feeling, instead of being an obstacle to his cure, often contributes to promote recovery. The very amusement, which the extravagancies of their associates often produce, helps to draw Lunatics, as it were, out of themselves, and make them forget their morbid feelings. Friends are often too re-repugnant to place a Lunatic in the hands of strangers: they are misled by the idea, that, in Lunatic Asylums, severe constraint and harshness are a part of the system of curing the unfortunate inmates; but this is far from being the case, at least in Public Asylums. Besides, many things which are requisite to forward the cure of a case of insanity are to be found only in such establishments. Still, however, there are cases which cannot be properly sent from home; and it is to the management of these that we have chiefly to direct our attention. The following are the rules to be attended to in home management:

1. The Lunatic must be separated from every one, whether relation or friend, or acquaintance, who was formerly familiar with him. The furniture of his apartment should also be changed, and more especially pictures and family portraits should be removed from it.

2. No servant should have the control of a Lunatic; and whoever is appointed to that duty should be made fully aware that nothing must be done or spoken to excite the ideas and the pas-

sions of the Lunatic upon the subject of his delirium.

3. None of the unreasonable ideas or opinions of the Lunatic should be directly opposed by argument or discussion, or opposition; nor should they be contradicted or ridiculed.

4. Every means should be taken to fix the attention of the Lunatic upon objects foreign to the matter of his lunacy, and to communicate new impressions to his mind. The chimeras of Kings or Queens or Nobles must never be flattered, nor the religious fervour of the melancholy Ascetic nourished. Whatever the ruling passion may be, it should be opposed by some other likely to make a strong impression upon the mind.

5. When there is a disposition to suicide, the Lunatic must never be trusted alone for a single instant.

6. When the Lunatic is not violent, he should walk out of doors twice a day, for an hour or more at a time: the circulation is thus better equalized than by any other kind of exercise. The early morning is the best time for the first walk; the balmy air of the new-born day tends to soothe the morbidly sensitive nervous system, as well as to invigorate the habit, and, in Melancholia, as it were dispersing the gloom which overshadows the mind, it reanimates the soul, and awakens feelings that had long been strangers to it.

In that species of Insanity which follows childbed, the invalid may be kept at home; but the same separation from friends is as requisite as in ordinary lunacy. She should always be attended by a keeper fitted for the office. The diet should consist chiefly of milk and farinaceous matters; but the quantity ought not to be stinted; and the meals should be repeated at short intervals. When there is no fever, both animal food and porter may be allowed. In other respects, the management should be the same as in ordinary madness.

5. *Diseases of depraved secretion.* Secretion comprehends those changes which the blood undergoes in a part of its course, through a set of very minute vessels denominated capillaries, in which new chemical combinations of some of its constituents are effected, and compounds essentially different from itself are produced. The processes effecting secretion are influenced by the nervous system, as well as by the force of the circulation and the condition of the secreting organ: thence, in certain deranged states of the digestive organs or of the brain, substances are formed in the secreting organs and deposited in different parts of the system, which give origin to severe and also fatal diseases. These facts are briefly stated here, to prepare the reader to understand some of the regulations connected with the management of this class of diseases.

*Scrofula**, the first of this class of diseases requiring to be noticed here, is a most active cause of mortality of the human race: "no other disease cuts off so many or so young victims†." It is one of those diseases in which a new substance—namely, Tubercle—is formed in the blood and deposited in the glands. It most commonly appears in those of a fair complexion, with large, watery, blue eyes and dilated pupils, long, shining eyelashes, and light, silky hair. The skin is usually thin, white, and so irritable, that slight acrid substances cause excoriations or eruptions on it. Those of this habit are also generally feverish in childhood, liable to inflammatory attacks, and of quick tempers and lively imaginations. But scrofula also appears in persons of a dark, swarthy complexion, with tumid features, indolent habits, obtuse feelings, and low intellectual powers. Scrofula is, in almost every instance, hereditary; and it is more frequently met with in females than in males. The appearance of it in one child affords sufficient reason for suspecting its existence in all the rest of the family, and consequently for adopting means to check its development in those not

* The name *King's Evil*, given to this disease, seems to have originated in an imaginary virtue of the Royal Touch in curing it. The curative influence of the Royal Touch has been traced to so early a period as that of Edward the Confessor: in all probability, it arose from the miraculous powers of curing the disease claimed by some of the primitive fathers of the Church.

† M. Lugol, *Comptes Rendus*, *January* 1840.

already affected. It is only under certain circumstances, that the disease becomes an object of attention in the sick-room; but, in whatsoever form it appears, whatever part or organ of the body it affects, or whatever medical treatment be adopted, the domestic management requires much attention. It may perhaps be allowable, in noticing this disease, to digress a little from the plan of the work, and to offer some remarks on the best means of preventing the development of the disease in those predisposed to it.

An infant, born of a scrofulous mother, should not be suckled by her, but be nourished at the breast of a sound, healthy wet-nurse. It should be warmly clothed, daily immersed in tepid water, holding in solution some common salt, and be kept as much as possible in the open air. The sleeping-room should be in the upper part of the house, lofty, and well-ventilated, and free from dampness. After weaning, the diet should contain a larger than ordinary portion of animal food, and the same attention as before be paid to ventilation, air, and warm clothing. The pursuit of pleasure or of business or study, as the child grows up, should be moderate; precocity of the mind ought not to be fostered; and every means should be taken to obtund the sensitiveness of the nervous system when that is morbidly acute. But, although the disease is almost always hereditary, yet it has appeared also to result from an in-

proper or too spare a diet, exposure to cold and moisture, or from whatever tends to derange the general health. When the approach to it, however, is obvious, from such causes, the same management is requisite as when the predisposition is congenital, except that the measures should necessarily be varied according to circumstances.

When scrofula is actually present, affecting the system generally, and has so reduced the strength of the invalid as to confine him to his room, the vapour-bath, used in the morning, and friction employed immediately after it, are not only highly beneficial in soothing the irritability of the habit, but form a substitute for exercise, which this state of the patient prevents him from using. The sick-room should be freely ventilated; and, if the discharges from the sores be fetid, a concentrated solution of chloride of lime should be placed in the room. The diet should be light, but nutritious, and of an animal description.

In reference to the local symptoms in scrofula, when the glandular tumors are large, and fomentations are ordered, it is better to apply the boiled chamomile flowers, or the hops, or hemlock, in a woollen bag, to the swellings, than to employ flannels wrung out of their decoctions. An excellent poultice is made by mixing an equal quantity of stale bread, grated, with linseed meal, and forming the mixture into a paste with boiling water.

If irritative fever be present, and nourishing food and wine be ordered, much discretion is requisite not to administer these stimulants too liberally, as the want of due caution in this respect may be productive of irremediable mischief.

When the joints and the bones are affected, the warm-water douche and friction, or percussion with the douching hammer, should be employed as afterwards described. (See Chapter V.) But whatever means, whether medical or domestic, are, after due consideration, determined upon, they should be persisted in for a considerable length of time.

Tabes or *Atrophy* is the result of a scrofulous constitution, causing obstructions and enlargement of the mesenteric glands. This affection most commonly occurs in infancy or childhood, ranging from the age of six months to twelve years. The belly gradually swells, whilst the legs and arms, and ultimately the face, become emaciated. The cheeks are hollow, the eyes glassy and sunk, the nose is lengthened, the upper lip swelled and fissured, and the legs and arms are reduced to mere skin and bone; so that the sufferer may be almost regarded as a mere *walking belly*. The appetite is usually variable and depraved, the temper fretful, and there is an aversion to exercise of either mind or body. The disease is dangerous in the ratio of the tender age of the invalid. It is by no means an uncommon consequence of attempts to

rear infants with the spoon, or on too low a diet after the period of suckling is over.

The preventive management of this mesenteric disease is the same as that required in general Scrofula, as far as regards diet, clothing, exercise, and air. When the belly has begun to enlarge, gentle friction, aided by a lather of mild soap, over the belly, and continued for a considerable time, morning and evening, will be found extremely beneficial. The daily use of the warm-bath, at 94° Faht., is an excellent adjunct to this course of frictions. The bowels should be regularly opened, but not purged. A combination of the carbonates of Soda and Ammonia, Myrrh and Aloes, in Sherry wine, will be found well adapted for that purpose*. The diet should be milk, with a very small portion of mutton or poultry, and a moderate share of well-boiled vegetables, avoiding the use of all fermented liquors. The mind of the little sufferer should be soothed, and rendered as cheerful as possible. As convalescence approaches, the child should be taken to the country to a mild situation, and the milk-diet continued for several months.

One of the most important diseases of this class—namely, *Consumption of the Lungs (Phthisis)*—requires much domestic management, whether in reference to its prevention, or

* See *London Dispensatory, ninth edit. p.* 1034.

in aid of the medical treatment requisite when the disease is fully developed. It is unnecessary to discuss here, even briefly, the symptoms, the hereditary tendency, or the causes of this inveterate foe to our race. Its appearance is so frequent amongst us*, that its characters are readily recognised, and its transmission from parents to children is generally acknowledged.

Like ordinary *Scrofula*, it is connected with two opposite conditions of the mental as well as of the physical constitution; the one is a very sensitive state of the system, attended with a florid complexion, thin, fair skin, and a precocious development of intellect; the other a torpid condition of the corporeal functions, with a dark, coarse skin, and a slow, obtuse state of mind. It is only in the last or third stage of the disease, when the hectic fever is fully developed, and night perspirations are wearing down the strength, that the sufferer is necessarily confined to the sick-room; and, consequently, it is this stage only which demands our attention. In it the cough is frequent and teasing, the expectoration abundant and of a purulent character; the nightly sweatings are copious; and there is severe diarrhœa, with which the emaciation and loss of strength keep pace.

* The proportion of deaths from consumption to the deaths from all causes, or total deaths, is one third, in Great Britain.

The emaciation, however, is not the result of either of these symptoms, but it seems to depend on the diseased condition of the lungs interfering with the function of assimilation. The breathing becomes affected on the slightest exertion, the ankles swell, the monthly change in females ceases, the nails suffer incurvation, the mind is gradually weakened, and, as death approaches, delirium occurs, although Hope seldom forsakes the invalid until the last breath is drawn. The average duration of the disease is about twenty-three months; but, in the acute form, it has terminated fatally in a month; whilst, on the other hand, in the chronic, it has run on for twenty years. When there is an hereditary taint, the disease may be developed in infancy or childhood; but, most commonly, it makes its attack between the ages of fifteen and thirty-five: in a few instances, it has appeared, for the first time, at so late a period as sixty years of age. Consumption may be set up in the lungs of those hereditarily predisposed to it by any of the ordinary causes of inflammation; but it is not an inflammatory disease: at the same time, it is true that the irritation which the tubercles excite induces a certain degree of inflammatory action in the lungs.

The measures necessary to be pursued for the prevention of Consumption have been already briefly stated; it is now therefore only necessary to

point out the domestic management of such cases in the sick-room; but, in doing so, it is necessary to state, that, as long as there is any reasonable hope of even the amelioration of the disease, confinement to the sick-room is injurious. The patient should, if possible, be removed every morning from the room in which he sleeps at night; but the day-room should adjoin the sleeping apartment, and both should be kept at an equable temperature, not exceeding 60° of Faht. and the air moistened by the evaporation of water placed in them.

When counter-irritation is necessary, the irritating agents are ordered by the physician; but instructions respecting their management are not always given. When it is Tartar-emetic ointment, and the pustules do not appear after one or two rubbings with it, the part should be covered, immediately after each rubbing, with a piece of rough flannel smeared with some of the ointment. As soon as the pustules appear, no more of the ointment should be applied on the part where they have risen. When a succession of blisters is prescribed, they should not be applied on the same spot, until after a considerable time has elapsed. If the skin be thin and irritable, the blistering-plaster should be covered with a piece of fine muslin or of silver paper, moistened with oil; and the plaster should be removed in seven or eight hours, or as soon as it has produced a deci-

ded inflammatory effect on the skin. The blister rises after the plaster is removed, and causes less suffering and irritation than when it is permitted to remain until the blister has risen. When blisters are intended to be kept open, much advantage may be derived by sprinkling a grain or two grains of any of the salts of Morphia upon the raw surface before applying the issue-ointment. When a Seton has been inserted, the inflammation which it excites, at first, is often so intense as to prove injurious as well as distressing to the invalid—an effect which should be moderated by the application of a poultice, until the visit of the physician, who should be informed of the circumstance. He should also be told when the Seton becomes indolent, and its edges hard and callous, or when the discharge, instead of being thick and copious, becomes thin and scanty. Both setons and issues, as well as blisters and other counter-irritants, prove most beneficial when they excite little pain or general irritation.

When the inhalation of gases or vapours is ordered, the directions contained in Chapter V should be adopted; and, when the vapour either of simple hot water or of medicated water is prescribed, the inhalation is better performed by holding the mouth over a jug half filled with the fluid, and inspiring deeply, than by employing an inhaler.

In the last week or two of the disease, the

difficulty of breathing is often productive of much distress: it is most quickly relieved by a mustard poultice, applied either to the chest, or the arms, or the feet; and it may be resorted to, in the absence of the physician, as often as the paroxysm returns. When the night perspirations are copious, the invalid should sleep in flannel, which should be frequently changed; and he should avoid taking any warm fluid towards bed-time.

Much diversity of opinion prevails respecting the diet of consumptive patients: the experience of the author enables him to say, that, at the advanced stage of the disease, it should consist chiefly of milk and farinaceous matters, with a very moderate allowance of plainly cooked mutton or poultry once a day. If Cow's milk be too heavy for the stomach, Asses' milk, or the whey of Goat's milk, or that of Cow's milk boiled down to one half, may be adopted. Iceland moss, deprived of a portion of its bitter, Carrigan moss, and all the farinaceæ, form good additions to the milk. He has seen much advantage derived from a diet consisting solely of grapes or raisins with bread and milk. A lady who adopted this diet, in an earlier stage of the disease than that now under consideration, and who took no medicine except an occasional emetic and an anodyne nightly at bed-time, prevented the advancement of the disease, beyond the point at which it had arrived when

she commenced the plan, for twelve years; after which the author lost sight of her. Little liquid should be taken at dinner; but a certain quantity is requisite to assist digestion. The best dinner hour for the Consumptive is two o'clock: sleep should not be indulged in immediately after dinner; but, an hour afterwards, as exercise cannot be taken in the advanced stage of the disease, friction should be applied, with a flannel-glove, over the stomach and along the spine.

Jaundice, although not directly a malady of diseased secretion, yet frequently arises from a depraved state of the bile, which, either forming gall-stones or becoming inspissated, plugs up the duct leading from the liver to the bowels, and thence throws back the bile upon the system. It sometimes, however, arises from pressure upon that duct by neighbouring tumors. The first is the most frequent cause of Jaundice. Little can be expected in this disease from domestic management, except in seeing that the directions of the physician are strictly adhered to; and in endeavouring to cheer the spirits and support the hope of recovery in the invalid. When the warm bath is ordered, it should be continued long enough, at each time, to produce great languor, or a disposition to faint. As soon as the bile begins to flow into the bowels, friction all over the body, with hair-gloves, will

hasten the disappearance of the yellow hue of the skin, and facilitate recovery.

Cholera, in that form which is termed Asiatic, from its having been imported from India, is yet too little known, and its course too rapid, to enable much correct information to be communicated respecting the domestic management requisite in aid of the medical treatment. When the disease prevails in a district, and a person is affected with general uneasiness, nausea, and vertigo, so as to lead to a suspicion that an attack of it is commencing, a mustard emetic, namely, a table-spoonful of the flour of Mustard in two ounces of water, should be instantly administered, and the physician sent for. If the purging is already present, two tea-spoonfuls of Paregoric, with two grains of Cayenne pepper, may be given before the doctor arrives.

The dread of contagion has, in many cases, driven away the friends and relations of persons unfortunately labouring under Cholera. When this occurs, the disease is more likely to terminate fatally from the desponding influence of that desertion on the mind of the invalid. It cannot be too generally known, that there is no direct proof of the contagious nature of Cholera; and that, if it is contagious, it is less so than Scarlet-fever, and several other diseases of frequent occurrence.

Medical practitioners have not conveyed the infection to their families, nor to patients whom they were attending for other diseases; and nurses have performed every office about the sick without taking the disease; proofs sufficient to demonstrate that it is less infectious than is generally supposed.

The ordinary *Cholera* of this climate, characterized by violent vomiting and purging of bile, pain in the stomach and bowels, and sudden prostration of strength, differs materially from the Asiatic Cholera. It occurs chiefly in autumn, and has been referred to the imprudent use of plums and other stone fruit; but it more probably depends on the great alternations of heat and cold at that season. The treatment is more domestic than medicinal, and consists of the free employment of mild diluents; such as gruel, barley-water, chicken-tea, beef-tea, or veal-tea. If the vomiting and griping pains be severe, twenty or thirty drops of laudanum may be given with any of these diluents before the physician arrives. If a warm bath be ordered, the temperature may be 100°; but the invalid should not continue longer than ten or fifteen minutes in it.

As the debility which remains after an attack of Cholera is great, much caution is requisite in moving the patient: death has suddenly taken place, after recovery, from mere exhaustion. The horizontal position should be maintained until the

strength returns; and the diet, although mild, should, at the same time, be nutritious, and calculated to bring up the vigor of the system. If the bowels require assistance, their action should be simply solicited by glysters of warm water and olive oil.

The mind of the patient should be cheered, and hope fostered.

THE LYING-IN ROOM.

Although it scarcely comes within the scope of these pages to lay down rules for the management of the lying-in chamber; yet, at the same time, a few remarks on the preparation for confinement, and its management after it is over, may not be considered out of place.

The same order and foresight are requisite in the preparation of the Lying-in room as of the Sick-room. The bed should be furnished with a firm hair mattress; over which, and beneath the under-sheet, a leather, with tapes attached to each corner, should be spread, and kept in its place by fixing the tapes to the corners of the bed. Sal volatile, Laudanum, Castor oil, and a bottle of Brandy, should be in the room; but on no account should any of them be administered without the instructions of the attending practitioner. Bandages and articles for blood-letting should also be at hand.

The labour may be *natural* and require nothing, or it may be *difficult* or *preternatural* and require artificial assistance: the domestic management of each is also different.

In the safest confinements, anxiety and a doubt of safety always occupy the mind of the woman as the moment approaches. The first duty of a nurse, and of a female friend, for more than one ought never to be present, is to allay these apprehensions by a cool, steady conduct, and proper arguments, and to rouse and awaken confidence by the most encouraging language.

At the commencement of labours, inexperienced nurses are too apt to consider rigors as bad signs; but that opinion is erroneous, unless the rigor be very strong and distinct: neither is an open state of the bowels to be dreaded. Every stage of a natural labour proceeds without any extraneous aid; even the woman has no power to help herself. The means are adequate to the intended effect; and few operations connected with the animal economy display more strikingly the wisdom and goodness of the Deity; thence the advice which is often delivered by nurses and midwives, to hold the breath and to bear down in order to assist the influence of the pains, is improper and useless. It should be impressed upon the mind of every woman, that those who are most patient and most tractable suffer least; and no truth

is more certain than that delivered by the venerable Dr. Denman—"that safety in child-birth is ensured by more numerous and powerful resources than under any other circumstances, though to appearance less dangerous*." The medical attendant who has not full possession of himself, and does not act upon principle, disregarding the impatience of others, is unfit for the duty which he has undertaken to perform.

All women are full of solicitude after the birth of the child, until the after-birth *(placenta)* is brought away; there is no necessity, however, for this anxiety; a continuance of the same process which expelled the child will effect the expulsion of every thing which remains. Every soothing measure, however, should be adopted to tranquillize the mind of the young mother, and to assure her that no unusual aid is required to complete the process which has been successfully progressing. When all is completed, the mother must be laid in a comfortable position, with as little disturbance as possible, and left to her repose.

When child-birth, owing to causes which it is not the province of these pages to discuss, is attended by unusual circumstances, and difficulties occur, the medical attendant must be one in whom full confidence can be reposed, and

* Introduction to Midwifery, vol. i, p. 37.

whose coolness and decision are calculated to encourage and augment the resolution of the sufferer. But, unless the efforts of the Practitioner be seconded by the conduct of the attendants in the lying-in room, little real advantage will be obtained. No Nurse who is flurried on such occasions is a fit person to officiate in the lying-in room; and a character for coolness and self-control is still more essential when the difficulty is of such a description that instrumental aid is required. The consternation of friends, in addition to the sufferings of the patient, always tends to raise suspicions in the mind of the woman that danger is nigh; and this even adds greatly to the risk that may be impending over her. But if the attendants are reassured by the calm and steady conduct of the medical attendant, the composure of mind of the sufferer generally returns; and every means must be taken to aid that, and to quiet her agitation. These rules are especially requisite when flooding follows the birth of the child. This always reduces the strength often to an alarming degree, so that the utmost caution is necessary in moving the patient; and, above all, to avoid raising her into an erect position, even for hours after a profuse flooding has been stopped. When she is able to be moved, the greatest care and circumspection are requisite in doing it. Want of due attention to this rule has often been followed by sudden death, when there was no suspicion of danger.

When child-birth is happily over, it is too common a practice to regard the woman as labouring under a state of disease, and to manage her as an invalid: but those recover best and most speedily in whom, with the exception of quiet and rest, the least change is made from their former habits, either in respect to diet or other things. It is an error to swathe the abdomen tight *immediately* after delivery; it is, besides, a useless custom; it does not tend to preserve the shape of the individual; and is often pernicious. No bandage should be applied for some days after delivery. When faintness, which is not uncommon, occurs after delivery, unless it arises from flooding, nothing is required but a little wine, and complete repose, until it subsides. The after-management may be comprehended in *quietness, living temperately,* and preserving the mind *tranquil* and *cheerful.*

After the mother has been properly attended to and made comfortable, the infant, very loosely clad in a flannel gown, and *without a cap,* should be placed in her bosom; and, as soon as she has been refreshed by some hours of sleep, it should be applied to her breast. This early application of the child to the breast often prevents that inflammatory state of the nipples which is a source of the greatest torture to the mother, and, occasionally, prevents the office of suckling from being continued. When, however, in spite of proper medical means being taken to moderate the secre-

tion of the milk at this period, the breasts become very painful, and the nipples sore, nothing is so advantageous as suspending the suckling altogether, until the milk almost disappears, and the nipples are healed; the infant, in the mean time, should have the advantage of another breast. When every risk of inflammation has subsided, it should be again applied to the breast of the mother: the act of sucking will soon produce a return of the milk, and the suckling may be then continued in the usual manner, without any further dread of sore nipples. Many domestic applications are usually recommended for sore nipples by nurses and others, chiefly to supersede the necessity of suspending the suckling; but very few of them are successful in either allaying the pain or in healing the sores, which always, more or less, are the causes of the pain. The only application which I have seen afford much relief is a mould, formed of Wax and Spermaceti melted together, and poured into a coffee-cup to consolidate; and then hollowed out sufficiently to admit the nipple. By wearing these moulds in the intervals of suckling, the nipples are excluded from the action of the air, and the cicatrization of the chaps and sores are much favoured. The infant should be suckled at stated times, not every time it cries. A habit is thus acquired which enables the mother to regulate her occupations, and which keeps the child satisfied.

The day after a safe delivery, a sharp renewal of appetite is necessarily felt, but it must be replied to with discretion and caution; and for two or three days, at least, only farinaceous food, with milk and tea, should be administered. The intervals of taking food ought to be short, and the quantity taken at one time small. As recovery, however, proceeds, the gruel may be changed for beef-tea; and, on the third day, if nothing occurs to forbid it, a mutton chop, or the wing of a chicken, or a moderate quantity of fish, may be indulged in. Thirst is a natural attendant on nursing, but it ought not to be quenched with porter or fermented liquors: the finest children which I have ever seen have been nursed by mothers who drank nothing stronger than toast-water or milk and water. The bodily system is thus kept free from fever; the secretion of the milk is not hurried; and its quality is much superior to that of nurses who swill quantities of porter or ale. Nothing is so essential as temperance in a mother who is nursing, or in a wet-nurse. The lying-in room, also, should be well ventilated, be kept at a summer temperature, and secluded from noise; and, as soon as possible, it should be exchanged for another. After this change, the drawing room should not be thrown open to every idle visitor; indeed, the congratulations on such occasions are often productive of evil.

In the dress of infants, the vanity of mothers and nurses must not be consulted. The dress should be as loose as possible, requiring no pins, and made so as not to compress any part of the body. It should be such as can be easily shifted without teazing the child. It may be supposed trifling to talk of preserving the temper of the infant; but, if it be true, as undoubtedly it is, that education commences in the cradle, the disposition may be so moulded at this early age as to render the future life happy or miserable: every thing, therefore, the most trivial, that can excite irritability of temper, should be avoided. Nothing tends more to teaze and irritate an infant than articles of dress which require pinning or tying; thence such ought to be set aside.

An infant should always sleep in the bosom of the mother, or that of the wet-nurse if the mother does not nurse it, until it ceases to require the breast at night. Objections have been made to this custom, founded on the fact that children have been occasionally overlaid, and killed; but, independent of the rareness of this event, and of its occurring also now and then among the lower animals, Nature points out its propriety by instinct, inducing all animals, even the most ferocious, thus to foster their young. If the breast of the mother be not relieved in the night, it becomes

over-turgid and painful towards morning; and the milk thus retained is injurious to the child.

When an infant is laid to rest during the day, the face should be left uncovered. If it be in health, it requires no rocking; thence cradles are useless.

The mind of a nursing mother cannot be too tranquil. Domestic anxieties, agitations, the excitement of much company, and the racketing of a fashionable life, are hurtful both to the health of the mother and the child. The perturbation of the former may be lessened by the efforts of a well-regulated mind; the indulgence in the latter is not only foolish, but it is criminal when the duties of a mother should wholly absorb the affections, the time, and the attention of a woman.

I have mentioned that the new-born infant should be placed in the mother's bosom *without a cap*, because I am of opinion that this foolish piece of dress should be altogether dispensed with. No idea is so erroneous as that which supposes that it is proper to keep the head of an infant hot; on the contrary, it should be kept cool. When it requires a covering, Nature provides it in the growth of the hair, which is sufficient for every purpose. By dispensing with the use of caps, I have witnessed many children escape an attack of water in the brain, even in families in which a strong hereditary predisposition to the disease existed.

When the infant is old enough to be carried into the open air, the head should be covered with a light bonnet; but many ribbons, much lace, plumes of feathers, and other ornaments of the same kind, should be discarded.

If a mother does not wash and dress her infant herself, she should have these operations always done in her presence. She will then be able to see that the daily ablutions are effectually performed; that the water is of a temperature according to the season and the weather; that the friction afterwards is adequate to the object in view, namely, producing a glow of warmth on the body of the infant, equivalent to that excited by walking exercise in adults; and that neither ligatures nor pins are employed in fixing the different parts of the dress.

When a child is to be weaned, or when any circumstances occur to prevent a mother from suckling her infant, and happily these are few, the secretion of the milk must be checked; or, in common phraseology, it must be *backened* or *driven away*. This is most effectually done by the free administration of cooling, brisk purgatives; and applying to the breast the Compound Camphor liniment, in a tepid state; or rubbing it occasionally with warm oil. The diet should be cooling, and limited in quantity; and fluids should

be avoided. If the quantity of milk is more than usually abundant, the breast may be drawn two or three times; but, when this operation is frequently repeated, it tends rather to favour the secretion of the milk than to lessen it. Until the milk is altogether gone, rest should be enjoined; and every source of irritation, or any thing which can rouse the passions, must be carefully avoided.

The circumstances which alone should prevent a mother from suckling her infant refer to the constitution, or to some natural malformation of the breast. Where a woman is scrophulous, or consumptive, or of an extremely susceptible nervous habit, or hysterical, she is unfit to be a nurse; and, consequently, another breast should be found for the child. Under no circumstances is a healthy woman, who is capable of bringing forth a healthy child, justified in deputing the task to a stranger: besides, nothing contributes so effectually to preserve and improve the health of a woman as nursing.

The weaning of the child, at a proper age, should be done gradually; the intervals of suckling should be lengthening; and a meal of fluid food substituted for the breast.

In concluding these remarks, it will not be thought out of place to offer a few hints for the management of infants after they are weaned.

In the first place, it ought to be generally known, that the younger an animal is, the greater quantity of sleep is required; thence the necessity of early rest for infants, and a certain portion of sleep, also, during the day. In the day-sleep, unless some person sits by the child to watch his awakening, he should be placed upon a mattress on the floor, and very lightly covered: this is useful in preventing the child from injury if he roll himself out of bed on awaking, and also in checking the tendency to profuse sweating when a child sleeps in the day-time on a soft bed, and is covered with a blanket or a heavy coverlet. A great source of restlessness in sleep is to be found in the state of the bowels; consequently, imperfectly digested food altering the condition of the system from that of its healthiest action, the circulation and the nervous system suffer, and impressions are made upon the brain which alter that state of the organ that should exist in perfect sleep. In adults, restless nights are the usual result of indigestion; and the same occurs in infancy. On this account, the administration of purgative medicines at bed-time should be avoided, as the irritation they occasion is apt to disturb the soundness of sleep. It should also be generally known, that there is a great distinction between sound and heavy sleep. When a child cannot be easily aroused from sleep, there is good reason for

thinking that he is not in good health. Sleep, nevertheless, ought never to be suddenly interrupted in childhood; for, independent of the loss of necessary rest, an injurious influence is always felt by the brain on such interruptions.

As the child advances in age, the dress requires to be changed. It should not, however, be done too suddenly, nor should the change be too great. What is called "short clothing an infant" often appears like an experiment to ascertain how little clothing can be done with; but nothing is more hazardous. Instead of bare legs, a child, a year old, should have lambs' wool stockings, reaching to the thighs, and a thin flannel shirt next the skin: it is only after a child is capable of taking exercise sufficient to circulate the blood upon the surface that warm under-clothing can be dispensed with. In mentioning exercise, it should be understood, that the natural period of an infant's acquiring the art of walking should not be anticipated; the moment when the infant is ready to walk, instinct will raise it upon its feet, and guide its first efforts to progress in the upright position. When placed on the ground, it will raise itself by the aid of chairs, or other supports, and soon acquire its power of moving from place to place. When infants are prematurely placed on their feet, they are liable to become bandy-legged, and they are less secure from falling than those who

have been left to Nature. If a child can walk at thirteen or fourteen months old, he may be regarded as robust. All go-carts, ploughs, and other artificial aids, are improper. The cold bath is judiciously employed to invigorate infants; but it should not be continued during the period of teething; or, if a bath be requisite, a dash of hot water should be added to it. A warm bath ought to be rarely used, except under the advice of the physician. In a few words, the physical education of infants must be regulated by such principles as are calculated to produce a sound and healthy constitution, neither prematurely developed nor too long incapable of exercising those bodily functions for which the organs of volition are intended. No regular systematic plan will answer this purpose; every individual case will require some modification. The delicate child cannot be brought up exactly on the same plan as the robust and the vigorous; and he, in whom there is an hereditary predisposition to disease, demands a degree of assiduous watchfulness in the parent which would be superfluous, and even hurtful, for a child free from such a taint. On these points, although much may be left to the discretion and observation of parents, yet, when the constitution flags, or the strength seems to give way, the physician should be consulted before any change is attempted.

CHAPTER IV.

ADMINISTRATION OF MEDICINES:—BLOOD-LETTING:—APPLICATION OF LEECHES—MODE OF PRESERVING THEM ALIVE AND FIT TO BE REAPPLIED;—CUPPING.

EVERY medicine is supposed to produce a specific change on the system, which usually continues for a certain time, when it requires to be renewed; and it is only by maintaining this new action for a period sufficient to effect what it is intended to perform in counteracting morbid action, that diseases are cured. The physician, therefore, in prescribing medicines in divided doses, calculates the time which the influence is likely to remain in sufficient force; and he orders the repetition of the doses at such intervals that the action begun may not fall too low before it is renewed. When attention is not paid to this method of proceeding, a fresh impulse is given by every dose of the medicine; but, as the effect of the previous dose is over before the new one is administered, it must be obvious that no advantage can be gained, however long the prescription may be taken, beyond that which would result from a single dose of the medicine. To aid, therefore, the efforts of the physician, the periods prescribed

for repeating the doses of medicines must be strictly observed; for, without attention to this rule, injustice is done to the physician, and, what is of more importance, the anticipations of benefit to the patient are frustrated. This is particularly likely to occur when the medicine requires to accumulate in the habit, before its influence is felt upon the system. Mercurials, Arsenical Preparations, Digitalis, and Iodine, are medicines of this description. The necessity, however, for this strict observance of the prescribed periods for repeating the doses of medicines is not intended to extend to the night, when the patient is asleep. In almost every disease, sleep is favorable to recovery: thence, although a medicine may be ordered to be administered every fourth hour, yet it would be improper to rouse the invalid from his sleep for that purpose; but it should be given the moment he awakes, and the period for the repetitions recommenced from that time. If the medicine be intended to produce some obvious effect—as, for example, perspiration —the extent to which that proceeds, or its non-appearance, should be notified to the physician at his next visit.

Fluid medicines are generally ordered in drops, or in tea-spoonfuls, or in table-spoonfuls; but, as these are all indefinite quantities, the magnitude of the drop depending on the nature of the lip of the

phial from which it falls, and the capacity of the spoons varying according to their form, glass measures should be employed; especially when the medicine is of an active kind. A large drop is equivalent to a *minim*; a tea-spoonful to a *fluid drachm*, or sixty minims; and a table-spoonful to *four fluid drachms*, or half a fluid ounce. When medicines are volatile, they ought to be swallowed the instant they are poured into the glass; and the bottle should be immediately corked. When they are to be given in a state of effervescence, the dose of the medicine should be poured upon that of the lemon-juice, previously put into a tumbler; as by this means the union between the acid and the alkali is more immediate, and the briskness, depending on the escape of the carbonic acid gas which is extricated, proceeds without losing a portion of the dose, which is apt to take place when a wine-glass is employed.

Medicines are proverbially disagreeable; but when administered in a state of effervescence they lose much of their nauseous taste. It is very common to give sugar, or other saccharine or subacid substances, to remove the taste of medicine from the mouth; but nothing does this so effectually as a morsel of Captain's biscuit, the influence of which has been long known in the Pump-room of Harrowgate, where the water has both the smell and the taste of rotten eggs.

Few medicines are agreeable to the taste; but one of the objects of the art of prescribing is to modify their nauseous properties as much as possible. In the domestic administration of medicines this should not be overlooked; indeed, it is more essential than in medical prescriptions, as the medicines are most frequently given in their simple form.

Nauseous medicines have little taste when mixed with some substances, and when they are taken the moment they are mixed. Thus the taste of Peruvian bark, and that of Rhubarb, when either is mixed in milk, is completely covered, if the mixture be taken directly. The nauseous taste of Castor oil is covered by *warm* milk, or by coffee; and it is also much diminished when the oil is floated upon some cold water, and a teaspoonful of brandy floated upon the oil. The disagreeable taste of Senna is considerably less when the Infusion is made with cold water, although it does not lessen the activity of the drug. The taste of the ordinary Senna tea is covered by the addition of a few grains of Cream of Tartar, or by the admixture of common Bohea tea. Aloës are rendered more palatable by a little of the Extract of Liquorice added to their solution.

It frequently happens that children cannot be persuaded to take medicines; and instances have occurred, and one of them within my own knowledge, in which the little invalids have fallen

victims to the disease, from a reluctance to employ force in administering the medicines to a sick child. To enable medicines to be given, in such cases, with as little force as possible, the author suggested a Medicinal-spoon, which is now very generally employed for administering medicines to children*; and it answers equally well for insane persons, when they refuse to take food or medicines. It consists of a spoon (*a*), with a

hollow handle (*d*), opening at the top (*e*), and also into the bowl of the spoon, which is covered with a hinged lid (*c*), but is open at the apex (*b*). The spoon is made in the form of a wedge, in order to force the teeth apart when resistance is made to

* The first spoon of this description was made according to the author's directions by Mr. Gibson, a silversmith in the City, who, two or three years afterwards, claimed it as his own invention, and received, as a reward, the gold medal of the Society for the encouragement of Arts; since which time it has been sold as Gibson's Medicinal-spoon. The author mentions this fact, not to obtain for himself any merit for the invention, but to shew the shameless claims which are sometimes set up; and the manner in which Societies, established for the public benefit, are often imposed upon.

its introduction into the mouth; and it is rounded at the corners to avoid injuring the tongue and gums. When any fluid is poured into the spoon, and the lid shut down, the pressure of the atmosphere upon the fluid, at the opening (*d*), near the apex, prevents it from running out of the spoon, as long as the orifice at the upper end of the handle is firmly compressed by the thumb of any person; but as soon as the thumb is removed, the fluid is projected with considerable force from the spoon. When the spoon is to be used, the head of the child must be steadied by an attendant, who should also compress the nostrils, which obliges the mouth to be opened for the facility of breathing. The spoon (*a*) is then introduced into the mouth of the child by another person holding it in one hand, in the manner represented in the cut (*b c*), and at the same time keeping down the arms of the child

with his other hand. The back of the spoon is then to be gently pressed upon the tongue, and the thumb (*c*) being removed from the opening of the

handle, the air rushes in, and projects the medicines into the gullet, whence it is instantly conveyed into the stomach. It is scarcely necessary to say that this Spoon should be regarded only as the last resort, and should not be employed until the Physician has endeavoured in vain to persuade the little patient to take the medicine by rendering it more palatable, or has substituted another for it.

When medicines are prescribed in the solid form, many persons have much difficulty in swallowing pills; and the smaller the pills, the greater is their difficulty. This arises from the nature of the two first acts of deglutition, which depend partly upon the will, and partly on the action of several involuntary muscles. In the first part of the process, the morsel requires to be pressed between the tongue and the palate, in order to be carried backward beyond what is termed the anterior palatine arch. This is purely an act of volition; but, if the morsel to be swallowed is small when it is raised to the palate, the sensation produced by a large morsel is not experienced, consequently, the voluntary act is imperfect; and, the mind being impressed with the difficulty of performing it, the morsel is retained in the mouth, instead of being carried backwards and dropped into the gullet as it should be by the second part of the process. In the usual mode of swallowing a pill, by laying it upon the tongue and taking a

mouthful of water, the act of deglutition is excited by the water, which passes down nearly as a solid body, and carries the pill with it; but, when the mouth is not closed, so as to form the water as it were into a mass, the fluid passes and leaves the pill behind it. To remedy this defect in deglutition, the pill should either be put into a morsel of soft bread, or into a mass of any conserve; in which, becoming a part of the mass which envelops it, the difficulty of deglutition from the small size of the pill ceases.

When a volatile medicine is to be administered, it should be swallowed the instant it is poured out; and, if it be Ether, or any inflammable substance, much caution is required, in pouring it out, not to approach a candle, otherwise an explosion may take place. This caution is the more necessary to be known, as many persons subject to dizziness *(Vertigo)* find immediate relief by taking a tea-spoonful of Ether in water; and, in many instances, this vertiginous feeling occurs in the evening. In administering Ether, it should be also recollected, that *one* part of it requires *ten* parts of water for its solution; and, if this quantity be not used, the unmixed Ether, floating on the surface of the water, excites irritation in the throat, and coughing, in the attempt to swallow it.

Idiosyncracies, or peculiarities of habit, may render some medicinal agents, which in general

are salutary, injurious. Thus, Rhubarb has caused convulsions, resembling epilepsy; an emulsion of Bitter-almonds has produced nettle-rash; Opium and its preparations have been followed by watchfulness and restlessness instead of sleep; Calomel, even in minute doses, has caused faintings; salivation has resulted from the use of Antimonials, Fox-glove, and even Prussic Acid; a paroxysm of Asthma has followed the odour of Ipecacuanha; and the author knew an instance in which an effervescing draught, made with solution of Citric Acid, always produced erysipelas, although no such effect resulted when Lemon-juice was used. Whatever may be the cause of such deviations from the ordinary effects of the administration of medicines, when the idiosyncrasy is known to the invalid, or his friends, they should always be mentioned to the physician, before he proceeds to prescribe. It is a curious fact, also, that some medicines, which produce certain uncommon effects upon the habit when taken into the stomach, may be applied externally with impunity: thus, Opium, when taken internally, may excite headach and restlessness; yet it may be rubbed upon the skin without causing these effects, and may operate sufficiently as an Anodyne and Soporific. Rhubarb, applied as a poultice to the region of the navel, will cause purging without convulsions, in those in whom epileptic fits follow its internal exhibi-

tion; and Calomel, if it gripes and purges when administered by the mouth, may be rubbed upon the gums and the inside of the cheeks, and salivation be produced, without the bowels being affected, provided the saliva be not swallowed.

It should also be known, that some medicines, in certain doses, cause effects at first which are calculated to excite alarm; but these cease when the use of the medicine is continued. Tartar-emetic, for example, administered in large doses, excites severe vomiting after the first or the second dose, but not afterwards. It is therefore prescribed as a powerful agent for allaying inflammatory action in serous surfaces; such as the lining membrane of the chest in *Pleurisy;* or the covering of the bowels, and lining membrane of the cavity of the belly, in *peritoneal Inflammation;* notwithstanding the severity of its action when first administered. In such cases, therefore, the vomiting, if the patient or the attendants in the sick-room have not been prepared to anticipate it by the physician, need not excite any alarm. But every uncommon or inordinate action of a medicine should always be mentioned to the attending practitioner on his next visit. Peculiar effects of medicines sometimes depend on the imagination of the Invalid, sometimes on preconceived prejudices respecting the action of the medicines. Many instances of these influences might be mentioned; but three will suffice to demon-

strate their power. The late Dr. James Gregory had ordered an opiate to a young man, to relieve sleepless nights under which he had suffered in convalescence from fever. He informed the patient that he had prescribed an *Anodyne*, to be taken at bed-time; but the Invalid, being somewhat deaf, understood him to say an *Aperient*. Next morning, on the Doctor enquiring whether he had slept after the Anodyne, he replied, "Anodyne!—I thought it was an Aperient; and it has, indeed, operated briskly." A female Lunatic was admitted into the County Asylum at Hanwell, under Sir William Ellis. She imagined that she was labouring under a complaint which required the use of Mercury; but Sir William, finding that the idea of the existence of that disease was an insane delusion, yet, considering that flattering the opinion of the lunatic, to a certain degree, would be favourable to the recovery of her Reason, ordered *bread pills* for her, and called them mercurial pills. After a few days, she was salivated, and the pills were discontinued; on again ordering them, after the salivation had subsided, she was a second time affected in the same manner; and this again happened on the recurrence to the use of the pills a third time. A lady, who was under the author's care, assured him that Opium, in any form, always caused headach, and restlessness, and vomiting, on the following morning; and, on prescribing Laudanum for her, under its usual name, "Tinc-

tura Opii," he found that her account of its effects was correct: but, on prescribing it under the term "Tinctura Thebaica," which she did not understand (she read every prescription), it produced its usual salutary effect; and was continued for some time, without inducing the smallest inordinate action. The author has also met with instances where similar prejudices respecting particular medicines were as readily overcome. Nostrums owe the beneficial powers which they occasionally display to this influence of the Imagination.

These anecdotes are mentioned chiefly to demonstrate the necessity of not mentioning the name or the nature of the medicines prescribed to the invalid; and, if he be Hypochondriacal, of leading his mind to anticipate the most favourable results from them; and, at the same time, to demonstrate the impropriety of permitting invalids to read prescriptions.

The influence of medicinal agents is, in many instances, modified by the period of the day at which they are administered; and the condition of the Invalid at the time. It is the duty of the physician, in prescribing, to name the time when the medicines are to be taken; but this is often done in such vague terms, that much is left to the discretion of the nurse or the other attendants of the sick-room; and, too often, no directions

are given respecting circumstances connected with the management of the patient, which are essential for securing the due operation of the medicines: it is, therefore, important to notice them in these pages. The Classes of medicines necessary to be mentioned are given in alphabetical order, as a physiological arrangement in a work of the description of the present would be altogether out of place.

When *Antacids*, medicines intended to neutralize acid in the stomach, are ordered, they should be administered early in the morning, and some time before a meal during the day. If the salt which the Antacid forms by combining with the acid is purgative, then it should not be administered near bed-time. This rule refers to Magnesia, but not to Chalk-mixture nor to Lime-water. The diet of the patient should be light animal food and well-boiled vegetables, avoiding all sweets and acids, pastry, and every thing likely to increase the acescent state of the stomach. The same precautions are necessary when alkaline remedies are prescribed with the view of relieving or counteracting a tendency to gravel.

Cathartics.—Before noticing the circumstances to be attended to during the administration of any of this class of medicines, I cannot avoid embracing the opportunity which it affords of cautioning against the too frequent use of purgatives. Independent

of the irritation which they keep up in the intestinal canal, they tend to impair digestion, by causing the secretion of hasty and consequently imperfect bile. They are, indeed, often the cause of Dyspepsia; and diseased affections of the heart sometimes arise from their continued use.

If Purgatives be prescribed in disease, they may be administered at any period of the day: but, in that case, caution is requisite to avoid exposing the Invalid to the influence of cold air. When the saline Cathartics, and Castor oil, are prescribed, their action is greatly quickened by diluting freely with warm demulcent fluids. But, if the saline purgative be Epsom salt *(Sulphate of Magnesia)*, it should be administered in a quantity of water only sufficient for its solution; and a large basin of warm gruel, or weak tea, should be given an hour afterwards. This salt, when thus employed, stimulates the gall ducts, and brings down a large portion of bile into the first gut, the *duodenum*, which is carried downwards, rapidly, by the aid of the diluent. When the Cathartic is given in the form of pill, the operation is always long of commencing; in which case, diluents are not required until after the first evacuation. In every case of acute disease, the evacuations should be preserved for the inspection of the physician; but not in the sick-room.

I have, occasionally, witnessed nurses and attendants in the sick-room giving only half of the purgative prescribed, under the idea that the strength of the patient was inadequate to a full dose. But it should be known that a specific action is intended by the administration of a large dose, and less hazard is likely to result from its action where a full evacuation is required, than from the irritation excited by a small dose. If the physician cannot be trusted to regulate the dose, he is inadequate to the treatment of the case.

Demulcents, prescribed in cases of Catarrh, are usually ordered to be taken *ad libitum.* They should be slowly swallowed; for much of any beneficial effect which they produce arises from their lubricating the throat and the gullet; and this soothing effect is communicated by sympathy to the lining membrane of the pulmonary tubes, with which the mucous covering of the throat is continuous. When cough is present, they should be taken after coughing; for, as that spasmodic effort throws off the acrid secretion formed on the inflamed mucous surface, the condition of the membrane is then much more likely to be benefited by their influence than at any other time.

Diaphoretics, medicines calculated to cause sweating, require their effect to be kept up by the free administration of tepid fluids or

diluents; thence the day-time is suited for their employment: but, as there is always a tendency to spontaneous perspiration early in the morning, that is the best time for their administration. The system is also then more easily excited, and the surface more readily relaxed. During their action, confinement to bed is essential; but the bed-coverings should be light blankets, as these are the best non-conductors of heat; and heavy coverings tend to check perspiration. The shirt of the patient should also be either flannel or calico. No cold liquids should be drank when the perspiration is flowing; and tepid diluents should not be acidulated when James's powder or antimonials are prescribed. When it is proper to moderate or to check the sweating, the invalid should be moved from the moist bed covered with a dry blanket, and then dried with soft, warm towels; whilst every exposure to cold air must be carefully avoided.

Diluents are required in all acrimonious states of the contents of the alimentary canal, whether arising from diseased bile or other acrid secretions, such as accompany fevers; and in diseases of the urinary organs. Water is the best of all diluents, as it is the basis of all of them; the temperature should be different according to the condition of the patient, when they are prescribed as adjuncts to diaphoretics; when they are intended to aid diuretics, they should be cold.

Water at 60° merely dilutes; between 45° and 60° it affords tone to the stomach; between 60°, and as high a temperature as it can be drunk, it stimulates. When the stomach is irritable, the temperature of the diluent should be about 70°; and, when heartburn is present, it should be taken as hot as it can be drunk. In all febrile affections, especially those accompanied with eruptions, diluents may be used at the discretion of the invalid.

Diuretics.—When these are prescribed, the surface of the body of the invalid should be kept cool; otherwise they are apt to operate as Diaphoretics, and cause sweating, instead of augmenting the secretion of urine. On this account, the patient should be kept out of bed, and the medicines administered only during the day-time. Their influence is also increased by exercise and by friction within the limits necessary to cause perspiration; and, during their administration, the free use of diluents, of which soft water is the best, is essential.

Emetics.—When Emetics are ordered, friends and attendants frequently interfere, and beg that the Emetic may not be too strong. Now it should be known that, unless the dose of the Emetic substance be sufficient to cause full vomiting, the effect will not take place; but simple nausea, great anxiety and restlessness, are likely to follow its administration. After the Emetic has been swal-

lowed, the patient, if able, should walk about until the first act of vomiting takes place; after which, but not till then, a large draught of tepid water should be drunk; and the same should be repeated after each successive act of vomiting, until the water comes clear off the stomach. Some caution, however, is requisite not to carry the supply of water to excess; for, when the stomach is oppressed with fluid, the muscles essential to effect the act of vomiting are not called into action; and the stomach is in danger of laceration, if any disease exist in it. The quantity of tepid water for an adult should be two thirds of a pint at a draught: and, when the stomach is weak, some bitter infusion—for instance, that of Chamomile flowers, or a few drops of solution of Ammonia—in the water, will render the action of the Emetic easier and safer. When the operation is completed, a dessert spoonful of Brandy, in a wine-glassful of cold water, will rapidly check any nausea which may remain. But if the vomiting continue obstinate and severe, a tea-spoonful of Magnesia in a glass of Sherry wine, or the common effervescing draught, may be given.

Emetics should be administered at the time ordered by the medical attendant: but, when there is no immediate urgency, or when the period of the day for their administration is left to the choice of the patient, the evening is the best time.

This will be readily understood, when we reflect that the body is always more or less exhausted by the operation, and that the disposition to sleep, which necessarily follows such exhaustion, may then be indulged.

Expectorants, or *Pectoral Medicines*, are supposed to promote the expulsion of mucus from the air tubes, in diseased conditions of the lungs. It is of little consequence to examine whether this opinion is correct, or to explain the distinction between those substances which operate topically upon the diseased membrane, and those which produce their effects by a nauseating or a sedative influence upon the system.

It is too common to prescribe this class of medicines, in Coughs and in Catarrh, without consulting the physician; but, as many of the articles contained in it, especially those frequently employed as domestic medicines, are stimulants, much mischief may result from their indiscriminate use. When Expectorants are prescribed, the following rules should be observed in their administration. 1. The surface of the body ought to be kept moderately warm, even in a breathing perspiration. 2. The use of fluids, or whatever can excite the kidneys, should be refrained from. 3. The use of purgatives must be avoided, expectoration being invariably checked when purging occurs.

Excitants, or *Stimulant Medicines*, are usually

prescribed in low conditions of the habit, when a sudden and powerful impression is required to be made upon the brain and nervous system. They are, however, too apt to be resorted to on every occasion of flatulence or pain in the bowels; and they are also not unfrequently employed where tone or strength is required to be given, but where excitement would prove injurious. But it should be understood that action is not strength. There is, indeed, no class of medicines which requires more decidedly the authority of the physician for their administration than Excitants; and, when they are prescribed, none require to be given so regularly according to the directions of the prescriber.

Narcotics.—When Opium, or any other article of this Class, is prescribed, the exact dose ordered should be given; otherwise, instead of causing sleep, if the dose be diminished, a stimulant effect only will be obtained; or, if a larger dose than that prescribed be ventured upon, a poisonous action may ensue.

No medicines are so much modified in their action by custom and idiosyncracy as Narcotics; both of which should be always noticed to the physician. Thus, when they have been long and frequently taken, they lose their influence in disease; and if this custom be not mentioned to the prescriber, it is not likely that the dose of the

Narcotic prescribed will be productive of benefit. But, by mentioning it to the prescriber, he may order another Narcotic which will produce the desired effect; the inefficiency of one Narçotic, arising from custom, not extending to other Narcotics.

Any singular influence of a Narcotic upon the system of the invalid should always be mentioned to the medical attendant. In some persons, furious delirium, in others, convulsions, follow the administration of Opium: thence these effects should be known to the prescriber.

With respect to the period of the day for administering Narcotics, if they are intended to allay pain, they may be given at any time, and repeated at short intervals, to any extent, without risk, whilst the pain continues; but as soon as it abates, their continued administration would prove highly injurious, if not dangerous. The author has administered upwards of eight hundred drops of Laudanum in twelve hours, during the passage of gall-stones, without any other effect than that of relieving the excruciating pain under which the patient was suffering: and much greater quantities have been administered by others in similar cases.

In prescribing Opium, or its preparations, as Soporifics, it is customary to order the dose to be taken at bed-time; but, if there is no reason for

strictly following this direction, the later in the night the opiate is given, the more likely is it to procure sleep, and the less likely to operate as a stimulant.

Sedatives differ from Narcotics in their action by depressing the nervous energy without inducing any obvious previous excitement. The greater number of them are too powerful medicines to be intrusted to the discretion of the attendants of the sick-room.

Tonics, as far as refers to the business of the sick-room, are generally prescribed to restore the tone and vigour of the body, after the disease which has caused the debility is removed. Those which are of a mental character, namely, *Hope* and *Confidence,* are in the hands of the attendants of the invalid, and should never be lost sight of in the management of disease. A cheerful countenance, and a confident manner, has a powerful influence in assuring the mind of the invalid, and, consequently, in confirming his returning health.

When Tonics—for example, Cinchona Bark, or any of the salts of Quina, or the Arsenite of Potassa—are ordered in Agues, it is during the intermissions that they prove most useful. One dose should always be given about half an hour before the anticipated return of the cold stage of the paroxysm. In remittent fevers, if Tonics be necessary, they are properly directed not to be

given until the remission is complete; but the attendant in the sick-room should be able to ascertain this fact, or much mischief may follow their administration. A remission may be recognized by the skin feeling cooler, and being covered with a moderate perspiration; the pulse becoming softer and less frequent; and nausea or vomiting, if either accompany the fever, abating; whilst the mind becomes rational and tranquil. The more decided, and the longer this state continues, the more properly may the Tonic be administered.

I have already endeavoured to enforce the necessity of adhering strictly to the directions of the physician or medical attendant; but, at the same time, some discretionary power, respecting the administration of medicines, must be reposed in the attendant of the sick-room. In exercising this power, however, any change which may be made, as well as the reasons for making it, should be reported to the physician at his next visit. If, for example, a medicine should excite vomiting, and this effect, which was not anticipated in prescribing it, continues, nothing would be more improper than persisting in its administration; but if, either from the taste of the medicine being disagreeable, or the caprice of the patient, a medicine be discontinued, it would display a defect of that firmness of character which every good nurse or efficient attendant in the sick-room should possess.

In every sick-room, the medicines only actually in use, or to be used during the day, should be left on the table of the invalid; and no medicine should be poured from any phial which is not labelled. The same spoon or the same glass may be employed in administering the same medicine during the day; but every new or different medicine should be given in a clean spoon or a clean glass; and every spoon and glass placed upon the medicine-table should be cleaned in the morning, although no change in the medicines is ordered. After pouring out the dose of medicine from a bottle containing more than one dose, the lip of the bottle should be wiped; and the bottle corked, before it is replaced upon the table. These little attentions are necessary, not only on account of the neatness and order which should always prevail in the sick-room, but also to prevent the evaporation of any volatile ingredient in the medicine, or any change from taking place owing to the action of the atmosphere. To illustrate the necessity of this precaution, let us suppose that a medicine contains in each dose four minims of Prussic Acid, and that the bottle is left uncorked for four hours, the interval between the administration of the doses. In such a case, the next dose would most probably contain little more than two minims of the acid; thence the effect intended could not be produced; and the physician, being unacquainted with the

cause of the failure of his anticipations in prescribing this powerful medicine, might be induced to order an increase of the dose, greater than the condition of the invalid can admit with impunity. Again, if a bottle, containing a mixture of a solution of Sulphate of Iron and Bicarbonate of Soda, forming a Protocarbonate of Iron, which is an active and powerful Antispasmodic and Tonic, be left open, the active Protocarbonate will be decomposed, whilst a Peroxide of Iron, which is inert, will be formed, and the efficacy of the mixture be altogether destroyed.

In almost every acute disease, the physician derives much information from the character of alvine and renal evacuations; thence these should be kept for his inspection; but they ought not to remain in the sick-room. The urine may be preserved in a glass goblet, which should be extremely well cleaned every time it is used, as very little tends to alter the appearance of that secretion. In pulmonary affections, the sputa or expectorated matters should also be kept in a clean vessel, such as is made for the purpose, and of which there should be always two in the sick-room. The importance of the inspection of the expectoration is greater than is generally supposed: its character not only assists the physician in determining the nature *(diagnosis)* of the affection of the chest, but it is highly instructive, also, as a prognostic guide.

Besides the proper administration of internal remedies, much of the business of the Sick-room, and much of the benefit to be derived from the skill of the physician or the surgeon, depends on the assistance which he receives in the employment of topical means; namely, in *Blood-letting* and *Cupping;* the application and management of *Leeches, Lotions, Sponging,* the *Cold Affusion,* the *Shower Bath,* other *Partial Baths,* and *General Baths; Fomentations, Poultices,* the application of *Frictions,* simple and with the aid of different substances; *Sinapisms, Blisters, Issues,* and *Setons; Rubefacients, Cauterants,* and *Bandages;* all of which should be understood both by nurses and by every attendant in the Sick-room.

When *Blood-letting* is ordered, every thing required for the operation should be at hand. The ligature for tying the arm, so as to obstruct the flow of blood in the veins below it, should be broad tape, or a soft, old ribbon; and the same may be employed for securing the pledget over the orifice, when the flow of the blood is to be stopped. The pledget or compress should be either a piece of lint or linen, folded into a square form, about an inch in diameter, and comprehending three or four thicknesses of the material. It is always proper to use a graduated basin; but, besides this, there should be one or two cups, to demonstrate the influence of the bleeding on the

aspect of the blood. If the invalid be bled in bed, he should sit erect; if he be up, he should be placed erect in a chair. When the surgeon is dextrous, there is little or no necessity for guarding either the bed or the clothes of the patient from the blood, as the pressure of the thumb of the operator, placed below the point where the vein is to be punctured, should not be relaxed until the utensil for receiving the blood be conveniently placed for that purpose. A basin with a little tepid water, and a clean, soft towel, should be ready for washing and drying the arm, before the compresses and the bandage for preventing the further escape of the blood be applied.

When a nurse or an attendant is not fully instructed in her duty, there is always considerable anxiety displayed to provide smelling salts and other means to obviate fainting. But, in many cases, much of the benefit of Blood-letting depends on the fainting which it causes; and the propriety of checking that effect should be left entirely to the surgeon. No person should be present at this operation, nor should any one attempt to hold the basin for receiving the blood, who is apt to sicken or to faint at the sight of blood.

The arm should not be used for several hours after the operation; but, after twenty-four hours, the bandage may be removed. If the bandage has been applied too tight, so as to arrest the re-

turn of the blood to the heart, the arm will swell and be in pain, in which case it should be slackened; but it is preferable that the surgeon should be sent for to remedy the evil. On removing the bandage altogether, if, instead of the opening being closed, the lips of the orifice appear swelled, and red, or if any unusual appearance of the part present itself, the surgeon should also be immediately informed of the circumstance.

The same preparations are requisite when the blood is to be abstracted from the jugular vein; but, besides the compresses and a bandage, a piece of *adhesive plaster*, also, should be provided.

Local Blood-letting is performed chiefly by *Leeching* and *Cupping*.

Leeches are seldom properly applied or managed. The part to which they are intended to be applied should be washed with a little soap and warm water, then with simple cold water, and, lastly, well dried. If the part be hot and inflamed, the leeches should be put, for a few minutes, into tepid water; and this should be done, also, when they are to be applied in the mouth, or to any part of the body warmer than the general surface; but, at all times, before they are applied, they should be dried between the folds of a clean, soft towel. The easiest and best mode of applying them is, first, to place the number to be used in a hollow, made with the points of the fingers, in a towel folded like a napkin; then, so to turn the towel and the

leeches upon the part where it is intended they should fix, that the towel will cover them. The hand must be kept over the towel, to prevent their escape, until they all bite, which usually happens in a few minutes: then the towel may be removed. By this method, twenty or thirty leeches can be applied more rapidly and with less trouble than two, when each leech is separately applied. If this plan, however, cannot be pursued, owing to the nature of the part to which they are to be applied—as, for example, the inner or outer angle of the eye—then the simplest method is to scratch the skin with the point of a needle, and to apply the leech to the spot moistened with the blood. When they are to be applied within the mouth, or any external cavity, each leech should be put into a large quill, with its head towards the open end, which should be applied to the part, and retained upon it until the leech is fixed, when the quill may be gently withdrawn.

Leeches should never be forcibly detached, as their teeth* are apt to separate, and, being left in the wound, to cause an erysipelatous inflammation on the part. They should be permitted to drop spontaneously, which being the result of a temporary

* The teeth of the leech are three little inflatable bags, armed with sharp, horny points, with which the skin is perforated. The teeth, after being carried into the wound, are inflated by the will of the animal; and, thus dilating the within wound, they form an instrument capable of supporting the weight of the body of the leech,

suffocation *(asphyxia)*, all muscular energy ceases in the animal, and, the teeth shrinking, it drops off entire. A bread-and-water poultice, not too hot, should then be laid over the bites, to encourage the bleeding. The invalid should be kept warm in bed, when it is necessary to abstract a large quantity of blood. In general, the bites soon cease to bleed; but, in some instances, a copious flow takes place; and therefore, to prevent exhaustion, the poultice should be frequently examined. This exhaustion is more likely to occur in children than in adults; and, for the same reason, leeches should not be applied upon children late in the evening, unless they are very urgently required. It is also proper, in young patients, to select for their application a part which admits of pressure; for example, a part over a bone or any other resisting medium, as it is often very difficult to staunch the bleeding when the leeches have been applied to the abdomen or any unresisting part. When leeches are ordered to be applied to young infants, the bleeding should be watched, and the bites instantly closed on observing the least appearance of sinking from loss of blood: the

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even after it is gorged with blood. It is this engorgement, opposed by the definite dilatability of the outer skin, that obliterates the breathing vesicles of the animal, which are arranged on each side, between the stomach and the skin: this causes suffocation, which, destroying the muscular energy and volition of the animal, necessarily forces it to lose its hold and to drop off.

neglect of this caution has in some instances been followed by death from exhaustion.

It should be generally understood that leeches will not bite, and are apt to fall off after they are fixed, if any peculiar odour be diffused through the air of the room: as, for instance, that of the vapour of hot vinegar; or the smoke from burning brown paper; or that from lighting a candle with a sulphur match; or from blowing out a candle; or tobacco-smoke: neither will they bite if the person has been taking sulphur internally.

Leeches are often applied, without surgical advice, to swellings of the breast during nursing: but they are, in such a case, of little use. Indeed, as a general rule, leeches should not be applied in any case without the authority of the surgeon.

In order to preserve leeches for re-application, very little salt should be used to make them disgorge the blood; and they should be immediately afterwards thrown into clean water, which ought to be repeatedly changed, at least three or four times. Instead of salt, a little vinegar and water may be used; or the leeches may be merely stripped through the fingers, and then thrown into clean water. In order to preserve them, the vessel should be only half full of water; but the water ought to be changed once in eight days.

When *Cupping* is prescribed, a basin of hot water and a few clean towels are all that are required.

CHAPTER V.

APPLICATION OF LOTIONS :—SPONGING :—THE COLD AFFUSION :—THE SHOWER BATH : — PARTIAL BATHS :—GENERAL BATHS : FOMENTATIONS :—STUPING : — POULTICING : — FRICTIONS, WITH AND WITHOUT STIMULATING SUBSTANCES.

1. LOTIONS.—The mode of applying *Lotions* depends on the object which the Lotion is intended to fulfil. If it is meant to operate as an Anodyne, or to allay pain, a piece of lint should be soaked in the Lotion; and, being laid upon the affected part, it should be covered with a piece of oiled-silk a little larger than itself. The intention of this is to prevent the evaporation of the Lotion; and, by keeping the part moist, to maintain the Anodyne effect, which might be lost were the lint permitted to dry. The oiled-silk cannot, however, be used when the Lotion is applied to the eyes.

But the principal intention of many Lotions is to abstract heat from inflamed surfaces, by the evaporation which they produce; in which case, a piece of muslin should be used instead of the lint: the thinner it is, the better. Lotions, for the purpose of abstracting heat from inflamed sur-

faces, or from the head in fevers, are usually compounds of either Vinegar and Water, or Spirit of Wine and Water, or Ether and Camphor-mixture; or they may be simply iced or cold Water. The object of the former additions to the water is to augment the evaporating property of the fluid; as the greater the evaporation, the more refrigerant is the Lotion. In their application, the inflamed or hot part should be covered with a *single* layer of *thin* Linen, or of Calico, or of Muslin, which should be frequently wetted with the Lotion; or a Sponge, holding some of it, should be squeezed over the rag, without removing it from the head. It is not absolutely necessary that the Lotion should be colder than the usual temperature of the body: it may be used tepid when this is more agreeable to the feelings of the patient.

When the head is to be kept cool, either by means of *Ice* or *Iced-water**, or by an evaporating Lotion, the scalp should be shaved; and the pillow of the bed made firm, by pinning it in a towel, over which a piece of oiled-silk should be

* In summer, if Ice cannot be readily procured, water may be cooled to the freezing point by any of the following mixtures. 1. Sal Ammoniac, 5 parts; Nitre, 5 parts; Water, 16 parts.—2. Sal Ammoniac, 5 parts; Nitre, 5 parts; Glauber Salts, 8 parts; Water, 16 parts.—3. Nitrate of Ammonia, 1 part; Carbonate of Soda, 1 part; Water, 1 part. The vessel containing the water should be put into the mixture; and the vessel holding the latter surrounded with flannel.

placed; and the Lotion used in the manner already described. When Ice is to be applied upon the head, it should be pounded and put into a large bladder. If cold water is the cooling medium, it may be put into Mackintosh's Cold-cushion. Whichever is used, the Cushion or the Bladder, it should not be more than half filled, in order to enable it to accommodate itself to the shape of the head, and to lie close upon it. If the Bladder be used, it should be retained in its place by a ribbon passed over it and tied under the chin of the patient; if Mackintosh's Cushion be employed, the head should be laid upon it. The cold of the Ice, as it melts, continues in the water until the last particle of Ice is melted: but the temperature of the water afterwards rises in proportion to the heat of the head, on which account the Ice should be renewed. The facility of renewing the Iced-water in Mackintosh's Cushion is greater than that of the pounded Ice in the Bladder. But, whichever may be preferred, the cooling of the head is the result of the direct abstraction of heat from it; and, to effect this, the temperature must be maintained at 32° during the whole period of the application of the cooling agent.

A powerful mode of suppressing delirium in fever is the *Cold Douche**, which consists in pouring

* This is a French term, derived from the verb DOUCHER, *to pump upon one:* it is equivalent to *Douse*, derived from the old neutral verb TO DOUSE, *to fall suddenly into the water.*

a stream of cold water from a jug, or from the spout of a tea-kettle, or through a funnel, over the shaved head. It not only sooths, but it induces sleep*. In applying it, the patient should be raised in bed, and, the head being held over an empty basin, the stream of Cold Water should be directed on the *crown* of the head, and the vessel gradually raised, so as to increase the fall of the water as much as the patient can bear it. The head should then be simply dried, not rubbed. Another powerful mode of subduing furious delirium by Cold Water is to allow the water to fall drop by drop on the crown of the head, whilst the rest of the shaved scalp is covered with cloths dipped in vinegar and water. But a medical man should be present at this operation, since it sometimes operates so powerfully as to cause dangerous fainting.

When the Cold Water or the Ice is intended to check either bleeding from the nostrils, or spitting, or vomiting, or purging of blood, the object then is to moderate the action of the larger vessels which supply those exhaling or emitting the blood through their coats; for a rupture of a blood-vessel is not often the cause of bleedings. In bleeding at the nose, towels folded and soaked in

* In Hindostan, women, who go out to work in the fields, keep their infants quiet and asleep, by laying them near some little runnel, and directing the water, through a reed, upon the head of the infant.

the Cold Water should be applied to the face and to the back of the neck, and, in severe cases, to the chest also, as the cold then operates as a powerful agent in lessening the action of the heart; and, for the same reason, cold substances should also be applied to the chest and between the shoulders in spitting of blood from the lungs. In these applications of Cold Water, it is its sedative effect which benefits; consequently, the wet towels must be softly applied, not dashed upon the part; for dashing, or applying them roughly, rouses the nervous energy, excites vascular action, and tends rather to increase than to lessen the flow of the blood. It is preferable not to move the wet substances after they have been first applied; but to remoisten them, frequently, by squeezing a sponge containing ice-cold Water over them.

When the solution of some salts, as Nitre or Sal Ammoniac, are to be used as cooling Lotions, it should be generally known that it is only during the dissolving of the salts, and a short time afterwards, that these salts communicate coldness to the water, beyond that which it possessed prior to the act of their solution in it. One ounce of Nitre, one ounce of Sal Ammoniac, and eight ounces of Water, are the proportions of these ingredients requisite for forming a refrigerant Lotion. It is, nevertheless, true that Lotions of this description are frequently prescribed as refrigerants,

without any regard to the principles upon which they operate.

2. Sponging.—In febrile diseases, when the skin is very hot and dry, the body is properly ordered to be sponged; and, although this process should be performed under the immediate superintendence of the medical practitioner, yet, it is often intrusted to nurses, and other attendants in the sick-room; it is, therefore, of importance that non-medical persons should be aware of the intention of prescribing Sponging, and also should know the most advantageous mode of employing it.

The object of sponging the body, either with cold or with tepid water, is to reduce the heat of the surface by means of evaporation, with the view of softening the pulse and diminishing its frequency; rendering the skin perspirable; relieving headach; checking delirium; and promoting sleep. Such are the intentions of the operation. In order to perform it well, the patient should be taken out of bed; and, being undressed and placed in a chair, two or three persons should, at the same time, rapidly pass large sponges, wet with simple cold or tepid Water, or Vinegar and Water, over different portions of the naked body, until the whole of it shall have been successively sponged, and a chill has come over the patient, who is then to be dried and placed in bed.

This appears to be a simple process; but it requires both caution and judgment to determine on its use, and to render it not only salutary, but free from danger. Thus, if the Sponging has not been performed very soon after it was ordered by the medical attendant, a change in the condition of the patient may forbid its employment. Let us take an example. If, notwithstanding the continuance of great heat and dryness of the skin, a sensation of chilliness has come over the patient when the sponging is about to be done, the operation should be delayed until the opinion of the medical attendant be again delivered as to the propriety of the measure; neither should it be done if the smallest tendency to perspiration, indicated by moisture in the axillæ, or on the palms of the hands, display itself. But, if it has been done; and if partial relief has been obtained: if the heat of skin returns and the pulse rises, it may again be resorted to, and even repeated several times, without further orders from the Physician.

But, besides the advantage to be obtained from *sponging the body*, during the presence of disease, it is also productive of great benefit in warding off diseases, or in a prophylactic point of view. The Sponging, however, under such circumstances, is to be performed in a different manner from that which has been described.

In those predisposed to Asthma, and to dis-

eases of the lining membrane of the air tubes, known in ordinary language by the term a *Cold* or a *Cough;* and in those, also, who are predisposed to *Croup,* nothing is so serviceable in warding off the paroxysm of the former disease or in preventing the attack of the latter malady, as cold and tepid Sponging of the chest and the trunk of the body. It is, also, equally serviceable during dentition in infants; and as a general Tonic in delicate conditions of the habit. In these cases, it should be followed by gentle friction over the surface of the body. In all of them it is most likely to be ordered by the Physician; but the question here is—how is it to be performed?

Sponging the body, as a Prophylactic or as a Tonic, is always most efficacious when it is performed whilst the patient is still in bed. Let him sit up; or, if unable to do so, let him be raised into the sitting position, keeping the lower limbs under the bed clothes. The night-shirt or night-dress is then to be stripped down, and a large towel or sheet put round the waist, to prevent the bed-clothes from being wetted. The naked trunk of the body and the upper part of the arms are then to be moistened with a sponge, or a piece of flannel, dipped in either Cold or Tepid-water, as the case may demand; after which, in drying the skin, brisk friction should be employed, so as to cause a general glow upon the surface. In some

cases, Salt and Water, or Vinegar and Water, may be necessary. The best proportions are two ounces of *Salt*, or the same quantity of common *Vinegar*, to a pint of Water. When these adjuncts are used, friction is not required: indeed, when salt-water is employed, the skin should be dried with a soft, old towel, fitted to soak up the water only, and to leave the saline particles upon the surface.

The best time for using such spongings is just before getting out of bed in the morning. They may be used in winter as well as in summer. In efficacy, they are certainly nearly equal to the Shower-bath, which may be used in vigorous habits: but, when the habit is delicate, and not equal to the reaction, on which the beneficial influence of the Shower-bath rests, Sponging is preferable. Neither should it be used when perspiration is present.

Sponging is not less beneficial than the shower-bath, in rendering the habit less susceptible of cold; and, when conjoined with exercise in the open air, and proper regimen, not only Asthma, Coughs, and Catarrhs, may be warded off by its employment, but the predisposition to Tubercular-Consumption may be lessened to a very remarkable degree by its daily employment. The appetite and the digestion are improved by it; the balance of the circulation between the viscera and

the skin is duly maintained; the nervous energy is rendered more vigorous; the sensibility is weakened; the feelings are rendered agreeable; and the muscular powers invigorated. No longer, like a hot-house plant, drooping beneath every chilling blast, does the Invalid tremble at the idea of venturing abroad: he can boldly face the air, and enjoy pleasure, or perform the duties of life, without dread or alarm. I could adduce many cases illustrative of the prophylactic value of Sponging; but one example is as good as a thousand. A lady, for several years, had a regular and most severe attack of acute Rheumatism, commencing in the month of November, as soon as the weather became damp. She began the use of Sponging with Salt and Water in January, after recovering from an alarming attack of the old enemy; and she has continued the practice without intermission up to the present time. In the subsequent September, she kept an anxious look out for the foe; but he did not shew even the smallest demonstration of an attack; and she has never since, to drop the metaphor, felt a single rheumatic ache or pain, while she has gained considerably in flesh and strength.

3. Cold Affusion.—The reduction of temperature, caused by throwing cold water upon the naked body in disease, is sudden and more decisive than that which results from lotions or from sponging. Although its employment in fevers

should never be attempted unless ordered by a medical man, by whom also it should always be superintended, yet, it is too often entrusted to nurses and other attendants in the sick-room, to whom a hasty description of the mode of using it is delivered, but which is seldom understood, or, if it is understood, the details are soon forgotten. When the necessity for its employment has been determined upon, and it has been ordered by the medical attendant, the patient should be taken out of bed, his head being previously shaved; and, being stripped naked, and placed on a stool in an empty tub, from *three* to *five* gallons of water, at a temperature not under 40° of Faht. should then be thrown over him; and this affusion should be repeated until he feel cold, or even until a rigor or shivering is experienced. He should then be dried, placed in bed, and a little warm wine and water administered to him, to aid the reaction and the consequent perspiration.

Now, let us suppose that the cold affusion has been once performed under the eye of the medical attendant, and that it is ordered a second time, and left to be done by the attendants in the sick-room: although they may be supposed to be acquainted with the mode of applying it, yet this is not sufficient; they should, also, be aware that circumstances may supervene to render it necessary to delay the operation until the Doctor has again visited the patient. Thus, if the invalid faint on raising him

into the erect position; if he feel chilly, although the thermometer indicates a high febrile temperature; or if the skin be bedewed with perspiration; or if the patient be a woman, and the monthly change be present; or if the invalid dreads the operation; it ought not to be employed. The evening is the best time for using the cold affusion.

4. SHOWER-BATH.—This Bath may be regarded as a modification of the Cold Affusion. The shock is less severe than that of the Affusion; but it, nevertheless, causes the same temporary uneasy feeling at the chest, which, however, disappears the moment the reaction commences. It may be used either cold or tepid. The former is the most advantageous, when the powers of the habit are adequate to cause a reaction sufficient to excite a glow on the surface, immediately after using the Bath: but, for those of weakened and delicate powers of body, the tepid Shower-bath should be preferred. In both cases, a bottle of salt brine is an advantageous addition to the Bath.

The trouble attending the filling of the Shower-bath is an objection to its daily employment: this obstacle, however, is easily lessened by having one bucket only of the water drawn off from the Bath, and the same quantity added, every morning; so that the whole may be, as it were, renewed in the revolution of three days. When the Bath is to be used tepid, the bucket of water which is

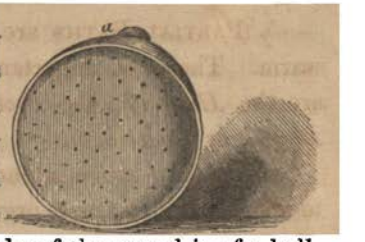
drawn off should be replaced by an equal quantity of hot water. A fresh bottle of brine should be added every morning.

The utility of the reaction of the Shower-bath is greatly promoted by the brisk application of friction to the skin, with a pair of horse-hair or coarse flannel gloves without fingers, but with a thumb (*a b*) only (see *cut*). The friction should be continued until the body feels comfortably warm, before going into the bath.

The best time for using the cold Shower-bath, when the habit is not reduced by severe disease, is immediately after rising in the morning: but, in weakened habits, an hour after breakfast is preferable. At that time, the first digestive process is over; and, the body being invigorated by the previous meal, the reaction is more certain.

In the construction of the Shower-bath, the old plan of confining it within a wooden case is preferable to the present one of curtains; for these being wetted each time the bath is used, the evaporation from them has the disadvantage of creating a dampness in the apartment where the Bath stands*.

* The mixture of metals in Shower-baths,—as, for example, of Zinc and Copper,—causes a Galvanic action which rapidly destroys the Zinc, and causes the Bath to leak.



An excellent Shower-bath for children has been lately invented. It consists of a hollow vessel made of tin, with a perforated bottom (see cut—*a*). The body of the vessel is of a bell-shape, with a hollow tube (*b*) rising from the top and terminating in a broad perforated rim (*c*). When the bath is to be used, it must be sunk in a bucket of water, until it is completely submersed; the air is thus driven out of the bath, which is filled with water. The thumb of an attendant is then to be placed on the opening in the centre of the rim (*c*), and the bath raised from the bucket of water. The pressure of air upon the holes in the bottom retains the water in the bath; and, on raising the thumb from the upper orifice, the whole is rapidly discharged. In using it, the child must be placed in an empty tub, and the bath, being held over his head, is then to be discharged; and the child immediately afterwards dried with friction.

5. PARTIAL BATHS are most commonly used warm. The most important and useful of these are the *Hip-bath*, the *Foot-bath*, and the *Warm Douche* or *Douse-bath*.

a. The *Hip-bath* is intended to influence chiefly those organs which are contained within the *pelvis*, or bony frame at the lower part of the trunk of the body. Thence it is fashioned to admit only the hips; but at the same time to afford support to the back (see *cut*). It may be employed with either *cold* or *warm* water. In either case, it should be recollected that the quantity of water should be only sufficient to fill a little more than one third of the capacity of the Bath; for, when more is used, the water rises when the bather sits down in it, and flows over the Bath.

When this Bath is employed to sooth pain, the temperature should not exceed 90° Farenheit; but the bather should remain half an hour or longer in it. When it is required to excite the womb to greater activity, when the monthly secretion is defective, the heat of the Bath should be as high as it can be borne; but the time of remaining in it should not exceed fifteen minutes. The evening is the best time for using the Hip-bath.

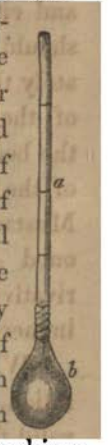
b. Foot-bath. The *Foot-bath* is chiefly intended to cause derivation; consequently it should be

used as hot as it can be borne, and always sufficiently hot to redden the skin of the parts immersed. The vessel should be deep enough to permit the water to reach nearly to the knees (*see cut*); and either woollen stockings should be drawn on immediately the limbs are taken out of the Bath and dried; or the bed should be warmed, to ensure the full effect of the derivation which it causes. Salt, sometimes Mustard, is added to the Bath in cases of threatened Apoplexy, or when a more than usual derivative effect is required. The hands may be immersed in a similar Bath at the same time.

When this Bath is intended to assist perspiration, the legs should remain in it until the invalid feels faint.

When the difficulty of breathing in affections of the heart (*Hypertrophy*) is considerable, the Foot-bath is frequently ordered for its relief. In using it, a blanket should be thrown around both the patient and the bath, to promote perspiration; but, at the same time, fresh, cool air should be admitted to the apartment, to satisfy the craving of the labouring lungs. If antispasmodic or anodyne medicines are ordered in such cases, the best time for administering them is whilst the patient is thus employing the Foot-bath.

c. Hot Douche-bath, or *Douse*. An excellent *Douche-bath* may be formed by pouring hot water from a tea kettle, or through a tube about an inch and a half in diameter, so as to cause the fluid to strike forcibly upon the affected part of the body, whilst, at the same time, percussion is employed; or, in other words, the part is beaten by means of an Indian rubber bottle, stuffed with wool (see cut *b*), and affixed to a cane handle (*a*). The action of the natural Douche-baths, such as those of Aix, in Savoy, and some other continental watering places, which combine the influence of heat and percussion, are well imitated by this simple apparatus. A temperature of 180° is readily borne in douching. When the disease is chronic Rheumatism, or when deep-seated pains are to be removed, the douching should be continued for either half or three quarters of an hour at a time; and the patient should be afterwards placed in bed, between blankets, in order to encourage sweating. I have seen the most decisive advantage, in enlarged, stiff, and painful joints (*Nodosity* of the joints), result from this mode of douching. The last-mentioned disease has a close affinity to Gout, but differs from it in some particulars. In one case which came under my care, the patient was able to throw away the crutches, which he had been forced to use for



several years, after two months' employment of this mode of douching.

In cases of complicated fevers, and in some other diseases in which inflammation of the brain occurs, the *Cold Douche* is frequently ordered. The mode of applying it has been already described: no percussion is required to aid its influence. It usually causes a most uncomfortable feeling at first; but the relief is so quickly experienced, that its repetition is generally requested by the invalid.

6. GENERAL BATHS.—When an order is given for the employment of a bath, the medical practitioner, too frequently, mentions merely the name of the kind of bath which he wishes to be used: it is, therefore, necessary that the patient, or his friends, should know the temperatures of the different baths chiefly in use. A temperature of

from 60° to 75° Faht. constitutes the *cold bath;*
from 75° to 85° —— the *temperate bath;*
from 85° to 96° —— the *tepid bath;*
from 96° to 98° —— the *warm bath;*
from 98° to 108° —— the *hot bath.*

The *Vapour-bath* produces effects equal to the

	Not breathed.	Breathed.
tepid, when the temp^{e}. is	96° to 106°	90° to 100°
warm, ——	106° to 120°	100° to 110°
hot, ——	120° to 160°	110° to 130°

a. The *Cold-bath*, when it is ordered to be employed, is never so advantageous as when it is

used in the open air, and especially in the form of *sea-bathing;* but, when this cannot be obtained, a large *Plunging-bath* of salt-water, either natural or artificial, is an excellent substitute. The form of the bath is of little consequence, provided it be large; and the apartment in which it is placed be airy.

As the intention of the Cold-bath is reaction, it is seldom that the constitution of an invalid is sufficiently vigorous to admit of its being used before breakfast, unless exercise, adequate to accelerate the circulation without exciting perspiration, be previously taken. But if the exercise cause a sensation of fatigue, the Cold-bath must not be employed at that time. After breakfast, the habit is generally fortified to a degree sufficient to insure reaction. On entering the Bath, the trunk of the body and the head should be instantly submersed, and as much motion be maintained whilst the bather remains in the water as the size and the form of the Bath will admit; but the period of remaining in the water should not exceed five or six minutes; for, when this time is exceeded, the animal temperature is greatly lowered, and reaction is prevented. In such a case, danger may ensue; and it is always to be dreaded when a long-continued chill follows the use of the Cold-bath.

b. The *Temperate-bath* excites less reaction

than the Cold-bath; but the shock to the system is less; consequently, it is better suited for delicate individuals; and it is also a useful preparation for the use of the Cold-bath, especially when, with delicacy of constitution, the invalid dreads the shock of the colder bath. It is also better suited to infancy than the Cold-bath.

Some discrimination is necessary in judging of the propriety of using these Baths; thence, even as a luxury, they should not be employed without the advice of the Physician. They may be regarded as hazardous for plethoric persons who have any tendency to bleeding at the nose, spitting of blood, or where there is a predisposition, natural or acquired, to Apoplexy. Those, also, who have affections of the heart, chronic affections of an inflammatory nature of the bowels, or loaded states of these organs, ought not to use them; neither ought they to be employed in any instance in which, from delicacy of constitution, reaction cannot be anticipated. The authority of the Physician should, also, be obtained before using the Cold-bath in nervous affections, although in such cases it is, usually, clearly indicated; and the same may be affirmed, in reference to the use of the Cold-bath in the intervals of the Paroxysms of Asthma, in which it is always productive of the greatest benefit. Nothing is so serviceable, as a prophylactic in a tendency to

affections of the skin, as the use of the temperate Shower-bath.

c. The *Tepid and the Warm Bath.*—In disease, the Warm-bath should not be employed unless when ordered by a competent practitioner; but it is as often employed as a prophylactic or preventive agent as a remedial one. In perfect health, neither the *Warm* nor the *Hot*-bath should be resorted to as an indulgence: but, for the purposes of cleanliness, the Tepid-bath at 95° may be employed; and it is preferable to use it at noon, after the first process of digestion is over; and, immediately afterwards, to take brisk exercise, in the open air if the weather be favorable. It will be found, also, extremely refreshing, employed in this manner, when a person is suffering fatigue from long-continued muscular exertion, or after travelling. In many individuals, a journey of several successive days is productive of febrile irritability, and derangement of the nervous system. Under such circumstances, the Tepid, or even the Warm-bath, if the skin be unusually dry, and accompanied by rigors, may be regarded as the best means of warding off any serious consequences. To the man of sedentary habits and intellectual exertions, and even to the proselytes of fashionable dissipation, the Tepid-bath is equally serviceable.

In such cases, the bath, whether tepid or warm,

should not be employed immediately after a meal, or when the person is much excited by wine. After using muscular exertion, also, the heat of over-exercise should be permitted to pass off; or, if the mind has been much excited, its tranquillity should be restored before using the bath.

In some diseases, the use of the *Warm-bath* may be left to the direction of the friends or attendants of the patient; and it is often important to have recourse to it before the practitioner can arrive. This is particularly the case in the convulsions of children, whether depending upon affections of the head, or on sympathetic irritation in teething. It not only relaxes spasm, and relieves at the moment, but soothes nervous irritation. When the convulsions are very severe, cold water may be applied to the head whilst the patient is in the bath. Sprinkling cold water on the face of the child, while he is in the bath, often tends to cut short the fits. In some diseases of adults, the same discretion may be permitted; for instance, in Lumbago, Sciatica, Colic, and all spasmodic affections unaccompanied with inflammation: for, whenever inflammation is present, nothing should be undertaken without proper medical advice.

In one disease of frequent occurrence—namely, Dyspepsia—the Tepid or the Warm-bath is, at all times, a safe auxiliary to other and more active

measures. It must, however, be recollected that, in Gout, which is the attendant of Dyspepsia, when the patient is of a full or an apoplectic habit, the warm bath may prove deleterious; and therefore it should not be universally employed. It is too generally supposed that the warm bath may be always safely used by those labouring under diseases of the skin; but this is, also, an error; and, instead of proving beneficial, there is much chance of mischief following its incautious employment. This is most likely to be the result when these diseases occur in persons of full, gross habits. In pregnancy much caution is also requisite, whatever may be the apparent object for using the Warm-bath.

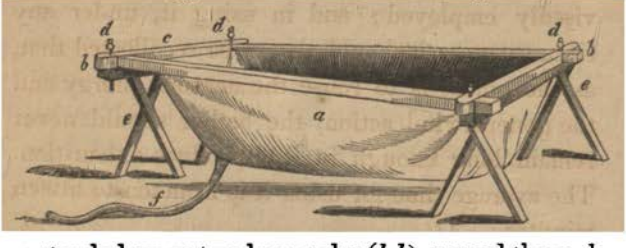
Management of Warm-bathing. — Whatever description of bath is ordered to be used, if no specific medical directions be given, it must be regarded as an invariable rule, that the original temperature be maintained during the whole time that the patient remains in the bath. At the end of ten or fifteen minutes, therefore, the heat of the water should be tested by the thermometer, and, if requisite, hot water added: and it must be recollected that nothing is a more fallacious test than the sensations of the patient.

The medium period for remaining in the bath is twenty to twenty-five minutes; and this may be regarded as the rule when no specific direc-

tions are given by the Doctor. In cases of infantile convulsions, the time must be regulated by the effect produced.

Whether the Warm-bath is employed as a luxury, or as a preventive of disease, the addition of salt to the water is always serviceable; but, in disease, neither salt nor any foreign impregnation should be used, without the order of a medical man.

The simplest Warm-bath is one which the author invented some years since. It consists of a hammock (*a*) of Mackintosh's cloth, which is



extended upon two long poles (*b b*), passed through a broad seam on each side of the hammock, and kept asunder by the cross pieces (*c*), which are attached to the poles by the thumb screws (*d d d*). At one end of the hammock is an air pillow, which can be readily blown up; and below it is a flexible tube *(f)*, made of the same materials as the hammock, by which any water it may contain can be readily drawn off. When the poles are fixed, as in the above figure, and the open end of the

flexible tube twisted round one of the thumb-screws, the bath is ready to receive the water. It may be supported upon two chairs, or upon folding tressels (*e e*). The advantage of this bath is, that it requires a very small quantity of water, compared with that demanded for other baths; —that it requires no sheet for the bather to rest upon; and, when the bathing is completed, the poles and the folding tressels can be placed aside in a small closet, or in the corner of a dressing room, and the hammock, when dried, put into a drawer.

d. The *Hot-bath.*—This bath, being a most powerful stimulant, should never be unadvisedly employed; and in using it, under any circumstances, it should always be recollected that, as the object is to rouse the nervous energy and the general vital action, the bather should never remain long enough in it to produce exhaustion. The average time for using it is from ten to fifteen minutes.

e. The *Vapour-bath.*—More latitude may be permitted in the use of the Vapour-bath than of the water baths already noticed. It is applicable to all the cases for which the Tepid and the Warm bath are ordered; and, when the Vapour is breathed, the extension of the heating medium to the lungs greatly augments its influence in procuring perspiration.

The simplest and most useful of all Vapour-

baths is that employed by the native inhabitants of Hindostan. The bather, stripped naked, is seated in an arm chair; and a large, deep, earthenware jar, or a bucket, filled with boiling water, is placed at his side: the body of the bather, the chair, and the water vessels, are then enveloped with a blanket, which is thrown over his head, when the vapour is to be breathed; or pinned under his chin when the vapour is not to be breathed. The body is soon involved in the warm vapour, and a copious sweat flows. Two bricks should be in the fire, ready to be thrown into the water, to renew the hot vapour, should it be necessary to protract the continuance of the patient in the bath. Friction may be employed whilst the invalid is in the bath.

This vapour bath may be used in a sick-room without the risk of wetting the room or rendering it damp; for, as the blanket involves both the bather and the hot-water vessel, it is folded up as soon as the operation is concluded, and carried out of the room.

7. FOMENTATIONS may be regarded as a species of local bathing. Although the decoctions usually employed, such as that of Chamomile Flowers or of Poppy-heads, are useful in aiding the warmth, by their soothing or sedative influence, yet they are secondary objects in the application of Fomentations, the intention being to convey heat, com-

bined with moisture, to the part fomented. Flannel cloths, wrung out of boiling water, by means of two sticks turned in opposite directions, form the best Fomentations. If they be shaken up, and laid lightly over the part, they involve a considerable quantity of air, which, being a bad conductor, retains the heat in them for a considerable time. In every process of fomenting, there should be two flannels, each three yards long, with the ends sewed together, to admit of the boiling water being wrung out of them; and the one flannel should be got ready whilst the other is applied. The fineness or the coarseness of the flannel is not a matter of indifference: the coarser it is, the less readily does it conduct heat; thence it retains its warmth longer, and becomes a more efficient fomentation.

a. Stuping is a variety of fomentation useful in many cases, but especially in affections of the eyes. The patient should be his own operator. He should sit up in bed, and should place, in the hollow of his hand, a small piece of flannel, wrung out of boiling water, and hold the hand at a sufficient distance under the eyes to receive the steam upon them, changing the flannel as often as it ceases to give out warm vapour. If narcotic or sedative additions are directed, a drachm of Tincture of Opium, or of Henbane, or of Hemlock,

should be poured hot upon the flannel each time it is changed.

8. POULTICES are modifications of fomentations. They are made either of bread-and-water, or of oatmeal and water, or linseed meal, or of carrots mixed with yeast, or of mashed vegetable matters; namely, onions, digitalis, conium, marsh mallows, or similar substances.

a. The *Bread-and-water Poultice*, to be applied hot, is made by pouring boiling water over a thick slice of a quartern loaf, from which the crust is taken, and which is placed in a hollow dish. It is softened by bruising it with the back of a spoon; after which, it is spread upon a piece of rag, and applied to the sore or affected part.

b. The *Oatmeal Poultice* is made by stirring, gradually, oatmeal, added in small quantities, successively, into water kept boiling in a pan, until it is adhesive, and of a sufficient consistence; that is, until it is thick enough not to run on the rag by which it is to be applied.

To both the foregoing poultices, the addition of a little lard is useful, if the poultice does not require to be frequently changed. When the object, however, is to promote suppuration, the poultice should be frequently renewed, in which case the addition of the lard is unnecessary.

c. The *Arrow-root Poultice* is made by mixing two or more table-spoonfuls of Arrow-root with

a little cold water, in a basin, till it is all united with the water; and then adding boiling water, until the whole becomes a thick gelatinous paste. This Poultice is admirably adapted for irritable, tender sores, where a soothing application is essential.

d. The *Linseed-meal Poultice* combines all the benefit to be expected from the three foregoing Poultices. The testa or husk of Linseed contains a large quantity of fixed oil, which is readily procured, by pressure, for the purposes of the arts and of medicine. When these seeds are made into meal, the testa being ground with the kernel, the result is a meal containing much oil, mingled with its farina; consequently, when the meal is made into a moderately thin paste, by stirring boiling water into it, a poultice, possessing the power of retaining heat equal to the others, and at the same time having a sufficiency of oil to keep it soft, is at once formed.

e. The *Carrot Poultice* is made by bruising boiled carrots into a pulp, and applying it in the same manner as the Bread-and-water Poultice. It is a useful application to old flabby sores, which it cleanses by stimulating them moderately; whilst the saccharine matter of the Carrots, exciting some degree of fermentation in the Poultice, the fœtor of the discharge from the ulcer is corrected.

f. The *Fermented Poultice* is prepared by

mixing a *pound* of wheaten flour with *half a pound* of yeast, and then exposing the mixture to a gentle heat until it swells. It is useful in all foul, offensive, painful ulcers.

g. The *Onion Poultice* is made in the same manner as the Carrot Poultice. It is highly stimulant, and is well calculated to aid suppuration in indolent tumors. An excellent Poultice for advancing a blind boil to maturity is a roasted Onion, divided into two halves, and as much of the centre of one half taken out as will cover the torpid boil. It should be frequently repeated.

h. Poultices of Foxglove (*Digitalis*), or of Hemlock (*Conium*), should be prepared with the Extract of these substances. Thus a good, sedative Poultice may be compounded by mixing *an ounce* of the Extract of Hemlock with *half a pint* of tepid water, and adding as much Linseed-meal as will render the Poultice of a proper consistence. These Poultices allay the pain of cancerous sores: but they should not be employed unless ordered by a surgeon.

Poultices should never be heavy, nor very bulky, but they should be frequently repeated*.

* The most ancient Poultice on record is mentioned in the Second Book of Kings, chapter 20, verse 7. It was employed for the relief of Hezekiah, who lived 260 years before Hippocrates. "And Isaiah said, take a lump of figs. And they took it, and laid it upon the boil, and he recovered."

They are useful, in all cases of inflammation which cannot be backed, to assist the suppurative process and the progress of the matter to the surface. After an abscess is opened, the Poultices should still be continued for a few days: but directions for poulticing are usually given by the Surgeon. They may be used, also, as fomentations in Colic, and Inflammation of the Bowels. In such cases, however, as the chief object is to allay pain and sooth, they should be made with decoction of Poppy-heads, instead of water.

9. FRICTIONS, whether simple or conjoined with Liniments, are frequently important aids to medical treatment. They are used also as prophylactic measures; and, as has been already stated, before and after bathing.

a. Simple Friction may be performed with the hand, constituting a species of shampooing; or its influence may be augmented by covering the hands with either flannel or hair-gloves (see *cut*, p. 285); or a flesh-brush may be employed. If the friction be well performed—namely, by short, brisk strokes with the tips of the fingers, and with great celerity*; when the naked hand is the agent; and if it be continued for an hour or upwards, and repeated several times a day—its influence in reducing

* At least 120 strokes should be made in the space of a minute.

swelled glands is astonishing. Nothing is required, in such cases, to aid the friction, except a little hair-powder, or flour, to prevent abrasion of the skin. A considerable degree of heat is developed by the operation. It is difficult to determine whether the benefit is the result of the simple attrition, or whether something is not due to electrical influence excited by the friction.

When friction is intended to aid the influence of the Tepid-bath, in causing perspiration, it should be used in the bath; or, immediately on emerging from it, after drying and placing the invalid between blankets. Oil or some simple unguent should be employed with the friction*. In some instances, also, where the friction is intended to allay deep-seated pains, a Liniment, composed of equal parts of oil of Turpentine and Tincture of Opium, or of ten grains of solid Opium dissolved by rubbing them in a mortar with ten drachms of olive oil, is a good addition to the friction. This Liniment is mentioned here because it may be employed in chronic pains, independent of the presence of any disease which demands medical attendance. About a dessert-spoonful of either of the Liniments, poured into the palm of the hand, may be used in each friction. In Consumption,

* The Romans had a particular officer attached to their Public Baths, whose occupation was solely to apply ointments to the body on emerging from the Bath—thence he was called *Unguentarius*.

the pains of the chest are often temporarily relieved by these opiate Liniments, combined with friction.

When friction is intended to operate as a simple Tonic, it operates chiefly by the warmth which it diffuses over the surface, and, partly, by equalizing the circulation. In order to insure these results, the use of the coarse flannel or the hair-gloves are sufficient, without the aid of Liniments. The operation is most advantageous when performed immediately on getting up in the morning. The rubbing, with the palm of the hands, covered with the gloves, should be commenced over the stomach and abdomen, and gradually extended to the loins and the back, as far as these parts can be reached, for the invalid should be his own operator. It should be, ultimately, extended to both sets of extremities. During the operation on the trunk of the body, the invalid should move briskly about the room; but, besides being well performed, the friction should be continued for half an hour, in order to render it useful.

Friction, when performed in a gentle, slow, and equable manner, by producing a continued repetition of an agreeable impression on the nervous system, acts as a soother of pain, independent of any aid from opiate Liniments, and it induces sleep. The beneficial influence depends, in a great measure, on its transferring the attention of

the sufferer from the seat of pain, and confining it to the mild and agreeable sensation impressed by the friction. In performing it, the operator should sit by the side of the bed, and, introducing the hand under the bed-clothes, rub the legs gently, with equally lengthened but slow movements. I might adduce many instances of the soporific influence of slow and gentle friction. When the invalid is young, its influence is more powerful when aided by a monotonous, but soft tune, which, although it operates upon a distinct sense, yet, by combination, renders the friction more soporific.

When friction is intended to stimulate the surface, it is necessary to aid its influence with Liniments containing Ammonia, or Camphor, or some other excitant or acrid substance: but these should be ordered by the medical attendant. In applying them, the same method should be adopted as when simple friction is employed; but the hand of the operator must be guarded by a glove from the influence of the acrimony of the Liniment.

Friction is, also, used to introduce various substances—namely, Mercurials, Iodine, Opium, &c.—into the body through the medium of the skin. The rubbing, in such cases, ought to be brisk, and applied with sufficient force to abrade slightly the cuticle; and continued until the substance, which is usually in the form of an ointment, disappears, owing to the absorption by the skin induced by

the friction. In using such frictions, the hand of the operator should be guarded by a glove; otherwise he is likely to suffer salivation, or some other unpleasant result, from the introduction of the medicinal agent into his own system.

CHAPTER VI.

MANAGEMENT OF COUNTER-IRRITANTS — RUBEFACIENTS — SINAPISMS — SUPPURATIVE OINTMENTS: — VESICATING OILS — BLISTERS — ISSUES — SETONS. MANAGEMENT OF DRY HEAT, BY STOMACH-PLATES — SALT-BAGS — HOT BRICKS — MOXAS — CAUTERANTS. DOMESTIC MANAGEMENT OF ACCIDENTS — BANDAGING.

10. COUNTER-IRRITANTS comprehend *Rubefacients, Sinapisms, Vesicating Oils, Suppurative Ointments, Blisters, Issues, and Setons.*

a. Rubefacients.—These are substances which, in combination with moderate friction, redden the skin and excite pain upon the surface, by stimulating powerfully the extreme nerves of sensation of the part to which they are applied. Some of them produce only a local action; the influence of others is extended over the whole system. Little is due to the friction in the application of Rubefacients; consequently, the only instruction necessary for that purpose, is, not merely to smear the skin with the Liniments, but to rub them into the part. As they are likely to affect the operator as well as the invalid, his hands should be covered with leather gloves, or the liniment should be rubbed on the

part with a piece of flannel, which should be afterwards laid over it.

Some *Rubefacients* require no friction. Of this description is Ether, Camphorated Spirits, and Liniments of solution of Ammonia and Oil. A rag, or, what is better, a piece of lint, dipped in Ether or in Camphorated Spirit, being laid upon the skin, and covered with a piece of oil-silk, or even with the warm hand kept over it for a short time, to prevent evaporation, will redden the skin, and relieve slight internal inflammations, and headach. The Liniment of Ammonia or Hartshorn and Oil, when used in incipient sore-throat, ought not to be rubbed upon the skin of the neck, but should be spread upon a stripe of flannel, about six inches wide, doubled upon itself, then put round the neck, and covered with a silk handkerchief. By thus preventing the evaporation of the Ammonia, the Liniment operates as a powerful local stimulant, relieving the internal inflammation, whilst its sympathetic operation upon the nervous system causes perspiration, and abates the fever which always accompanies sore-throat.

An excellent method of reddening the skin, when it is requisite to maintain the counter-irritant effect for many hours, is to sprinkle some finely powdered Sal Ammoniac on a piece of leather, spread with Soap-plaster. The Alkali of the Soap

gradually decomposes the Sal Ammoniac, which is a compound of Muriatic Acid and Ammonia; and, setting the Ammonia free, the skin continues to be stimulated by it whilst it is evolved, which is as long as the decomposition goes on.

When the effect intended to be produced is not required to be considerable, but to be continued, a *Warm-blister* applied to the skin will produce a rubefacient effect, and relieve slight internal pains.

It is customary for non-professional persons to recommend Rubefacient Liniments in Rheumatism: but their indiscriminate use in the acute form of the disease may cause a translation of the inflammation from the part to which they are applied to the lungs, the heart, the brain, or some other vital organ, and fatal results may follow. But although they are hazardous in acute rheumatism, and ought never to be employed unless ordered by the physician, yet, in old, chronic rheumatic pains, Liniments of Turpentine, or of Ammonia and Opium, often relieve the pains, sometimes cure the disease.

b. Sinapisms.—These are most immediate and most active Counter-irritants: they are Poultices containing a stimulating ingredient or acrid substance, namely, *Flour of Mustard;* thence they are termed *Sinapisms.* They are made by mixing equal parts of flour of Mustard and Bread crumbs

or Linseed-meal into a paste, by means of hot vinegar, if the flour of Mustard be made from the *Yellow Mustard;* but with hot water only, if it be the *Brown Mustard,* such as is used on the Continent, which contains the husks as well as the farina of the seeds; in which case, vinegar would destroy the acrimony of the Mustard. This paste should be spread thin upon a piece of rag, and applied, as soon as it is mixed, to the part of the body indicated. In a few minutes after it is applied, the Sinapism causes a sensation of heat, which increases to almost intolerable burning. After some time, the pain subsides, and is followed by a sense of weight and throbbing of the arteries. If the Sinapism be left on, however, the burning pain again returns, and becomes so great, that few persons can bear the action of a Mustard Cataplasm longer than three quarters of an hour.

In delicate, sensitive people, the Sinapism need not remain applied above six or eight minutes, as the effect continues some time after its removal. If it remain too long on, Gangrene may supervene: but no injury can result from this cause, if the invalid be not insensible, as too much pain is felt to permit the lengthened application of a Sinapism; but, in cases of stupor, in low fevers, a Sinapism, if left on longer than an hour, may cause both vesication and gangrene. If the redness only is required, the pain may be moderated by

mixing with the paste a drachm of Tincture of Opium, or two drachms of Tincture of Henbane, neither of which, although they allay the pain, diminish the activity of the Cataplasm.

c. Vesicating Oils.—When a more permanent counter-irritant influence than a Sinapism can produce is required, Oils containing irritating substances are ordered to be applied, by friction, until vesicular eruptions display themselves. The application of these substances seems a simple process; but, nevertheless, it requires to be done in a particular manner to insure the results which the irritants are expected to produce.

The oil which is chiefly employed for this purpose is *Croton-oil,* diluted with either Castor-oil or Olive-oil; but both the kind of oil and the quantity is always ordered by the Doctor. In applying it, the part should be first excited by brisk friction, with a piece of flannel dipped in strong vinegar, until the skin is reddened and rendered very sensible. The Oil is then to be rubbed upon the reddened surface; and this part of the operation repeated at intervals of four to six hours, until a crop of small vesicles breaks out; after which, no more of the Oil is to be applied. The vesicles gradually enlarge; but they never attain to a great size. The part feels, at first, hot and painful; but in a few days, as the inflammation subsides, it acquires a tightened sen-

sation; after which, the cuticle exfoliates, and the skin recovers its usual sensation and softness.

d. Suppurative Ointments.—If an ointment containing Tartar-emetic be ordered as the counter-irritant, more caution is requisite, both with regard to the method of applying it, and its after-management, than is necessary in using the above-mentioned oily compounds. When the skin is not previously excited by friction, and the ointment only slightly rubbed upon it, it operates very slowly; and, after the lapse of a few days, a few large but distinct pustules break out: but, if the vascularity and sensibility of the skin be previously exalted, by the means already described, and the ointment briskly rubbed in, a thick crop of small pustules appears in the course of four or five hours, and they soon become confluent and maturate. As soon as the pustules appear, the use of the ointment must be discontinued; its further application causing not only severe and unmanageable sores, but, the Tartar-emetic being absorbed when applied to a raw surface, violent vomiting is induced. The suppuration of the pustules attains its height in twenty or thirty hours; after which, the pustules shrink, dry, and exfoliate.

The Tartar-emetic may be applied to produce the same effects in the form of a *hot Solution*, which should be rubbed on the part by means of a piece of flannel. The solution is required to be

hot, for two reasons; namely, that it may be more concentrated by the augmented solvent influence of the hot water, and that its temperature may render the skin more sensible to the action of the Tartar-emetic. The pustules thus produced are smaller than when the ointment is employed; but they are sufficient for the effect intended; and, as they leave no pits nor traces behind them, this method of using Tartar-emetic is peculiarly adapted for females. Unless the cuticle be abraded, neither nausea nor vomiting follows this application.

If the object be to maintain the counter-irritation for some time, the ointment or the solution may be applied, first upon one side of the chest, and then upon the other when the effect of the first application is on the decline. The repeated renewal of the excitement, in this manner, aids greatly the beneficial effect of the counter-irritation. Should the inflammation run too high, the application of a warm bread-and-water poultice will moderate it, without impeding the progress of the pustules.

The morning should be chosen for the application of these counter-irritants; or at least the period of the appearance of the eruption should, if possible, be so managed as not to interfere with the repose of the invalid. They may be applied to any part of the body; but the part is usually indicated by the Physician.

e. Blisters are produced by various means, the most usual of which is the common blister-plaster. The method of applying the plaster, and dressing the blister which it forms, is extremely simple; but, nevertheless, unless special directions be given by the medical attendant, many persons are entirely ignorant respecting it. A blister should never be applied to any part of the skin which is excoriated, or otherwise broken. The part to be blistered should be well cleaned, with a little soap and water, and rubbed with a rough towel; and, after applying the plaster, it should be retained in its place by stripes of adhesive plaster, or by a bandage lightly applied, for much pressure prevents the vesication. In ordinary cases, the plaster is usually left on until the blister rises: but, if the person be liable to strangury, or if he is of an irritable habit, it may be taken off five or six hours after its application; for, if the skin be inflamed, the blister will rise after the plaster has been removed, without any absorption of the acrid matter. This prevents strangury, and the irritant effects of absorption; but it is also customary to guard against these by interposing a piece of gauze, or *silver paper* moistened with oil, between the skin and the blistering-plaster. Both of these customs are preferable to diluting largely with mucilaginous and other fluids, which often defeats the beneficial effects anticipated from the blister.

In general, the excitement caused by the first action of a blister-plaster disposes to sleep; thence, unless an immediate effect be desired, or unless directions are given to apply a blister at some particular time, blisters are usually applied at bed-time. In very sensitive habits, the pain of a blister causes injurious irritation, an effect which may be prevented by the addition of six grains of extract of Henbane, or three of extract of Belladonna, to the plaster, without injuring its activity.

When the immediate effect of blistering is required, a blister may be instantly raised by laying on the part a piece of lint, or a piece of bibulous paper, dipped in strong *Vinegar of Cantharides*, or in strong *Solution of Ammonia*, taking care to prevent the fluid from running upon the surrounding skin. A blister may also be raised by directing a jet of steam from a boiling kettle upon the part, covering the surrounding skin with folds of soft paper: by applying boiling water, also, blisters are raised; but these methods should seldom be attempted.

A more manageable manner of blistering by heat, than steam admits of, is the application to the skin of a piece of polished metal, heated in boiling water. The metal should not be too large, but it should be sufficiently thick to retain the heat for some minutes.

Many persons have a dread of large blisters; but, when the full effect of blistering is required, a large blistering-plaster is to be preferred to a small one; for the irritation from the former is not greater than from the latter, and the benefit is more decided. Large blisters, however, depress more than small ones; consequently, where simple counter-irritation is required in weak habits, small blisters are to be preferred. In some deep-seated diseases, blisters are ordered to be formed by rubbing the Nitrate of Silver on the surface of the skin. In order to raise a blister by this substance, the boundary of the part should be marked out with ink; and the stick of caustic moistened should be drawn across the skin, in lines close to one another, first in one direction, and then in another, the second lines crossing the first at right angles, until the whole is covered with the Nitrate. On drying, it leaves a black stain upon the cuticle, which is raised by the formation of pus beneath it. This blister requires no dressing; but merely to be punctured.

When a blister has been raised by the usual means, the cuticle should be snipped with a pair of sharp scissors at the most depending part, and the serum evacuated. If the intention is to heal the blistered surface, it should be dressed with Spermaceti ointment, spread on the *soft* side of a piece of lint, without removing the cuticle. But,

if a discharge is intended to be kept up for some time—or, as the term is, a perpetual blister to be formed—the cuticle should be removed, either by cutting it round the edge with a pair of scissors, or by applying a hot poultice, which carries the cuticle away with it when it is taken off. In dressing the denuded part, in order to make the perpetual blister, the lint or rag upon which the irritating ointment is to be spread should be cut smaller than the blistered surface, and always afterwards kept of the same size. In every case, whether the blistered surface is to be healed or to be kept open, the ointment for dressing it should be spread upon the soft side of the lint. When the plaster is larger than the blistered surface, it irritates the sound skin unnecessarily, without aiding the discharge. Many persons faint when a blister is dressed for the first time; but such a circumstance need excite no alarm. It is a mere sympathetic effect.

In children labouring under dentition, or under remittent fever; and in some peculiar states of the constitution (idiosyncrasy) both in children and in adults; blistered surfaces, instead of healing, assume the appearance of an eating or phagedenic sore. In such an event, besides proper general remedies, the part should be dressed with Oxide of Zinc ointment, spread thick on the soft side of lint, and a poultice applied over the dressing. When

gangrene supervenes, a solution of chlorinated soda should be added to the dressing; and Bark, or the Salts of Quina, and Wine, administered. But these are cases which demand the management of the medical practitioner.

In maintaining what is called a *Perpetual Blister*, the Cerate of Savine is the irritating substance most commonly employed. In dressing a blistered surface with this ointment, the film which forms must always be removed; otherwise the part dries and heals: this is most easily done by a hot fomentation, or a poultice, which should be left on for six hours; and, as the film is thus loosened, it must be cleared off before another dressing be applied.

f. Issues and *Setons* form more effectual drains than perpetual blisters; they are, consequently, often employed. Both require care and a peculiar management to keep up the discharge. The issue is kept open either by the introduction of peas, or a piece of lint smeared with the ointment of Savine, into the eschar. The peas operate by mechanical irritation; and, as they swell from the action of the heat and the moisture of the eschar, they tend also to enlarge the wound. The peas should be changed, at least once, in twenty-four hours. The very irritation, however, by which the discharge is maintained, is apt to cause fungous

growths from the bottom of the wound, which should be kept down; but this must be left to the surgeon.

g. Setons are made by passing a skein of silk, or a slip of caoutchouc, under the skin, so as to cause a purulent discharge from the part. They are apt, however, after they have been discharging for some length of time, to become callous, and to cease to discharge. When this occurs, the irritating substance should be smeared with some stimulant ointment; but, as such a condition of a seton should always be mentioned to the Practitioner in attendance, I shall say nothing respecting the method of renewing the discharge.

It should be recollected, that much mischief may result from suddenly suppressing or removing either an Issue or a Seton. If this be, at any time, done without the concurrence of the medical attendant, purgatives should be administered, and the discharge of the Issue or the Seton checked as gradually as possible.

11. HEAT, independent of Moisture, or in a dry state, operates beneficially in relieving deep-seated pains, affections of the joints, and diseased conditions of the spinal cord, or of the sciatic nerve. The intensity of its action is readily modified by the choice of the vehicle for applying it. The common modes of application are *Hot Flannels*,

Stomach Plates, Salt-Bags, Hot Bricks, Moxas, and the *Actual Cautery.*

a. Flannel, being of a loose texture, and involving air, is a non-conductor of heat; thence it retains the heat communicated to it for a considerable time, and yields it up slowly to any part of the body where it is applied. It is customary, after heating flannel for remedial purposes, to roll the piece tightly together, and then to cover it with a towel: both of which practices are injudicious. The more air which can be involved in the flannel, the longer it will retain the heat; consequently, instead of rolling it into a compact mass, it should be put together as loosely as possible, and applied in that state to the skin. On the same principle also, the covering of a towel hastens the cooling of the flannel, by augmenting its radiating property; linen (the texture of the towel) being a much better conductor of heat than flannel. White flannel retains heat much longer than black, or any coloured flannel.

b. Stomach-plates (see cut), and other solid media for applying warmth to the body, should

not be indifferently smooth nor rough upon the surface. The rough surface radiates heat in much greater quantity and in half the time occupied by the polished surface. Thence, in cases of spasm of the stomach, when an instantaneous and

powerful effect is required, the stomach-heater should be either rough on the surface, or it should be covered with a piece of dark-coloured, rough flannel. If we wish to apply a moderate, but a long-continued heat, the heater should be highly polished. Metallic bodies, also, convey a greater degree of heat than the hot water in which they are heated, even when the metal is at a lower temperature than the water. The kind of metal of which the heater is made is also of some consequence, as one metal radiates more powerfully than another: thus, silver is superior in this respect to tin, copper to lead, and iron to zinc. A silver jug, filled with boiling water, cannot be held in the hand; but there is no difficulty in holding a leaden jug, under the same circumstances.

c. Salt-bags, Hot Bricks, and *Foot-heaters,* should, on the above principle, be covered with white or coloured flannel; as they may be required to communicate an immediate or intense heat, or to convey a slighter but more permanent stimulus to the part requiring to be heated. They have one advantage over Fomentations, in the facility with which they can be prepared, when an immediate excitant influence is required: for example, in cases of Gout in the stomach, Cramp, and suspended animation from drowning.

12. THE APPLICATION OF MOXAS AND CAUTERIZATION.—These, especially the latter, are always

regarded, by non-professional persons, as cruel and unwarrantable operations on man.

When the application of the *actual Cautery*, or burning with an *Iron* heated to whiteness, is pronounced to be necessary as a remedial agent, it should not be objected to; for it is an error to suppose that it is productive of severe suffering to the patient: on the contrary, when managed in the manner which I suggested some years since, it is by no means a painful operation. The greatest pain arising from the white-hot *iron* is caused by the radiation of the heat, acting as a powerful excitant on the surrounding skin, and causing acute inflammation and vesication; whilst, the vitality of the part upon which the iron itself is immediately applied being instantly destroyed, the sensibility is lost, and, consequently, little pain is felt. Indeed, the pain arises from the approach of the hot Iron to the spot, not from its positive application. These inconveniences attending the operation, therefore, are prevented by covering the surrounding skin with moistened paper, perforated with a hole a very little larger than the bulb of the cauterizing iron.

When the operation has been determined upon, the paper should be previously prepared by the nurse or attendant of the sick-room; and a phial of spirit of Ammonia should, also, be at

hand. Cartridge paper is the best for this purpose. A sheet of it, folded to a quarto size, or so as to form four thicknesses of the paper, should be soaked in clean, soft, cold water, for two hours, then pressed between the folds of a dry towel, until it is freed from all the loose water. In this state, it is easily moulded to the shape of the part which is to be cauterized; and it forms an effectual guard against the scorching from the radiation of the hot Iron. The spirit of Ammonia is usually applied, after the paper is removed, to subdue the pain, which is secondary to the operation.

The eschar caused by this operation is rapidly sloughed off, and an issue quickly formed. Its beneficial influence in deep-seated inflammations, as an energetic counter-irritant, is much greater than that of any other which I have witnessed. It is much less painful than Moxas, or the usual method of forming an Issue by Caustic. The pain, however, resulting from the application of a Moxa, may be mitigated by the moist paper, on the same principle which renders it useful in cauterization by the white-hot Iron.

13. Domestic Management of Accidents.—There are many incidental injuries of so slight a nature that the assistance of the Surgeon is not demanded. In such cases, much evil often results from ignorance; and injuries otherwise of little

moment become serious and difficult of management. On this account, it is important to point out the mode of managing such cases.

a. Burns and *Scalds*, unless they are very extensive, are generally managed without the aid of the Surgeon. Every one has some favourite application to propose in such cases: thence we hear of the infallible success of Cold Water; of scraped, Raw Potatoes; Cotton-wool (finely corded cotton); Oil of Turpentine; Spirit of Wine; and many other substances. When the cuticle is scorched and hardened, a poultice, moistened with Laudanum and Oil of Turpentine, in equal quantity, is likely to afford considerable relief. When it is raised in blisters, either Cold Water, or Vinegar and Water, or Goulard's Lotion, will ease the pain; after which, the blisters should be punctured with a needle, and the cuticle left undisturbed, as it forms a scab, which protects the part while healing. When the skin is extensively injured, and the cuticle destroyed, the part may be covered either with cotton-wool, or wadding, or with flour, or hair-powder dusted upon it. All of these applications sooth the pain, cool, absorb the discharge, and protect the parts from being irritated by the bed coverings or the clothes. When the cotton-wool is used, it should be soon and frequently changed; but the flour may be left undisturbed, as it forms a crust which protects the raw surface,

until it is pushed up by the pus which is formed beneath: after which it is readily removed by a poultice; and the healing process proceeds favourably.

When a Burn or a Scald, however, is sufficiently severe to produce constitutional disease, the assistance of the Surgeon ought never to be dispensed with, as the treatment often requires to be opposed to that which the symptoms appear to indicate to a non-professional observer.

b. Fœtid Purulent Discharges from the Ear. Purulent discharges from the ear frequently follow severe cases of Scarlet Fever, and some other eruptive diseases, and continue for the rest of life. But, although this discharge cannot always be checked, yet it may be moderated, and the fœtor corrected; and in this respect it becomes an object of domestic management. The ear should be, every morning, syringed with either tepid Water, or tepid Lime-water; and, immediately afterwards, two or three minims of a mixture, composed of two drachms of *Balsam of Peru* and six drachms of fresh *Bullocks' Gall*, well mixed together, should be dropped into it. Cotton or Wool ought to be worn in the ear, to absorb the discharge, and to prevent the injurious influence of cold.

c. Slight Sprains. No injury is usually more mismanaged by non-professional persons than sprains: every old woman has her infallible

remedy. "The proper treatment certainly appears to consist in absolute rest and position*;" which latter implies elevation of the limb. Fomentations of warm water sooth the pain and abate the swelling; and, when the swelling pits on pressure, "gentle friction becomes advantageous, and uniform support should be afforded by the application of a flannel-roller†." The invalid should preserve the recumbent position, the sprained limb being elevated, upon a pillow, higher than the rest of the body, in order to diminish the flow of blood to the diseased part. When the sprain is very severe, it ought not to be tampered with, but surgical advice should be immediately procured.

d. Bruises require the same absolute rest and the application of fomentations as sprains. The common custom of applying cold water is useless; and stimulating frictions in the first instance are always injurious, although, after a time, they may prove beneficial. For severe bruises, surgical advice should always be obtained.

e. Cuts or *Wounds* of external parts, although they rarely prove dangerous, and therefore require merely domestic management, yet, when the bleeding cannot be easily staunched, surgical ad-

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* Liston's Elements of Surgery, 2nd edit. p. 757.

† Ibid.

vice should be obtained. A moderately deep cut may prove more dangerous or troublesome than a deeper one, owing to the bleeding artery being only partially divided, and thus being prevented from retracting, which is the mode adopted by Nature to check the bleeding when the vessel is cut fairly through. When the bleeding is not great, implying the division of small veins or capillary arteries, the wound should be allowed to bleed for a short space of time; then, gentle pressure being made at a little distance on each side of the wound, the divided edges of it should be cleanly sponged with cold water, and applied together, and a compress of lint dipped in cold water bound over the wound. In forty-eight hours, on removing the pledget, the edges will be found adhering, and the wound healing, in the same manner as the incision made in the operation of Bloodletting.

The bleeding from a wound made by a blunt knife is not so profuse as that from a sharp instrument; but the probability of the edges of the wound adhering, by what Surgeons call the *first intention*, is much less.

f. Scrofulous Swellings of the Glands of the Neck are often treated at home, without the aid of the Physician or the Surgeon, until they suppurate, and are likely to leave scars. When such domestic management, however, is determined upon, the invalid should be put upon a nutri-

tious animal diet, his bowels kept free by exercise on foot, whilst mild purgatives should be given, and the solution of Iodide of Iron, in doses of from *ten* to *sixty minims*, internally administered, in a glass of water twice a day. The tumors should be treated with fomentations of salt or sea water, and friction employed twice daily for half an hour each time. If suppuration cannot be arrested, under the improved state of health, then surgical advice must not be delayed until the abscess bursts spontaneously, for an ugly scar is likely to be the result; an event always to be regretted, especially in females.

g. Decayed Teeth.—The glandular swellings, just noticed, as well as many other evils,—among which may be mentioned headachs, ulceration of the tongue and lips, pains of the face, resembling the disease termed *Tic doloureux*, and some more extended nervous affections, as well as dyspepsia from imperfect mastication of the food—not unfrequently depend on decayed or carious teeth. Although I am not one who would recommend the extraction of every decayed tooth,—because, after a tooth decays to a certain extent, it often remains stationary for many years, without causing the smallest annoyance, and may answer the purposes of mastication almost as well as a sound tooth,—yet, when the cavity of the tooth is exposed, and toothach is experienced, the mouth

should be examined by a good Surgeon, or a well-educated, experienced Dentist. Stuffing teeth is often too long delayed; for, if the central cavity of a decaying tooth be exposed, and this state is accompanied with pain, stuffing may be productive of serious evil; indeed, cases have occurred in which fungous growths have filled the cavity of a decayed tooth, and have given rise to affections of the jaw, which have terminated fatally. A tooth which is much decayed, if it causes pain, or is accompanied by any of the above-mentioned affections, should undoubtedly be extracted.

h. Warts are excrescences of the cuticle, which very commonly appear on the hands of boys, and occasionally on other parts of the body in adults. They frequently disappear spontaneously, wasting and dropping off; but, occasionally, they remain for a long time, and become large and troublesome, in which case it is necessary to remove them. They may be repeatedly rubbed with moistened lunar caustic; or a piece of leather, spread with adhesive plaster, perforated with holes just large enough to admit the warts to pass through it, may be applied over the part; and the warts touched daily with strong Acetic acid. They generally disappear in a few days under this application.

i. Corns appear upon the toes in consequence of compression upon the joints with tight shoes.

They require to be kept down by paring, after bathing the feet in hot water, and immediately afterwards covering them with soft leather. If, at the same time, wide, easy shoes are worn, the hard nucleus of the corn will sometimes be brought out by this treatment. People who call themselves Chiropedists dissect out the nucleus, with a small, sharp-pointed knife, and by this means effectually cure the disease. When the operation is cautiously and skilfully performed, it causes no pain.

k. Encysted Tumors frequently appear on the head, which not only disfigure it, but also prove very inconvenient. It ought to be known, that no local applications nor any general treatment is of the smallest advantage. They can only be removed by a surgical operation; but, when it is performed by a good surgeon, it is scarcely productive of any pain; a few drops only of blood escape, and no dressings are afterwards required. Such tumors, therefore, should always be removed. When they appear upon the eyelids they are more troublesome to be removed; but, unless they are removed, they sometimes attain a great size, and press upon the eye.

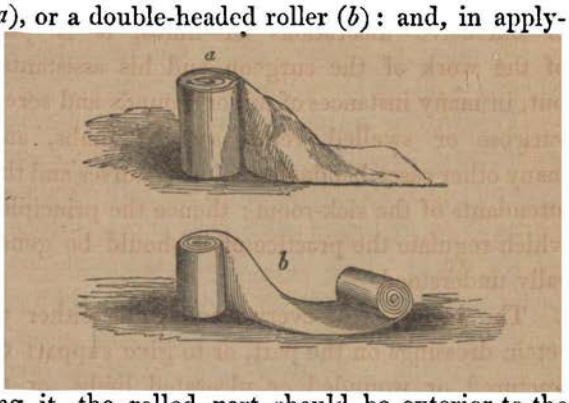
14. BANDAGING.—It has been justly remarked, that "the most judicious medical treatment and the ablest surgical operation will fail if not assisted by

good bandaging*." In operations, and in cases of extensive ulcerations of limbs, it is part of the work of the surgeon and his assistants; but, in many instances of minor wounds and sores, varicose or swelled veins, swelled limbs, and many other cases, bandaging is left to nurses and the attendants of the sick-room; thence the principles which regulate the practice of it should be generally understood.

The intention of every bandage is either to retain dressings on the part, or to give support to fractured or wounded or ulcerated limbs, or to maintain parts of the body in certain positions, or to facilitate operations. For all of these purposes, a certain degree of firmness and elasticity are requisite in the material of which the bandages are made. Flannel or Calico is usually preferred. The width of a bandage must be regulated by the purpose and the part of the body for which it is intended; but, for general purposes, from two to three inches is sufficient. The web of Flannel or Calico should be snipped on one selvage into the requisite breadths, and then torn across, so as to preserve the elasticity of the strips, which should next be sewed together by their ends till the proper bandage-length is obtained. Every bandage should

* Hennen's Surgical Observations, p. 75.

be firmly rolled into either a single-headed roller (*a*), or a double-headed roller (*b*): and, in apply-

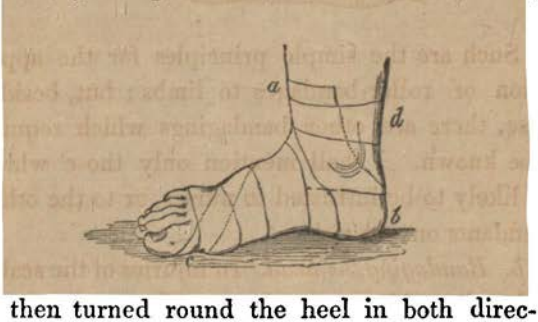


ing it, the rolled part should be exterior to the part to be applied; for, by this means, it, as it were, unrolls itself in its progress round the limb. The application should be equal with reference to tightness; and the tightness only sufficient to support the affected part without impeding the circulation of the blood, or inducing pain or inflammation in it. If either of these last-mentioned circumstances should follow the application of a bandage, even by a surgeon, it should be immediately loosened; thence, for this as well as other reasons, it should be so applied that it may be easily loosened.

a. Bandaging the leg. In order to accommodate a bandage to the shape of the leg, each circumvolution should be so reversed by a half twist, before the next circumvolution is made, in passing

from a smaller to a larger part, as to cause the bandage to apply closely to the calf of the leg, or to any other inequality of the limb, and to assume what is termed a *herring-bone* appearance.

This will be better understood by the representation of a bandage in the course of application to an ulcerated leg. The end of the roller is placed a little above the inner ankle-bone at (*a*); thence it is "carried under the heel (*b*), and round the ankle once; then passed over the foot, close to the roots of the toes (*c*), and, by two or three turns, brought up again to the ankle, over the point of the heel-bone to (*d*), being reversed under each ankle-bone,



and then turned round the heel in both directions*." It is next carried upwards, as represented at (*d*, page 335); the turns (*e f*) being half twisted in anticipation of its reaching the calf of the leg where the sore (*g*) is supposed to be seated.

* Liston's Practical Surgery, 2nd edit. p. 210-11.

Such are the simple principles for the application of roller-bandages to limbs; but, besides these, there are other bandagings which require to be known. I shall mention only those which are likely to be intrusted to nurses, or to the other attendants on the sick.

b. Bandaging the head. In injuries of the scalp, arising from blows or other accidents, or in diseases of that part, symptomatic of morbid conditions of the general system, displaying themselves in the form of scabby eruptions, the best means of retaining dressings on the part is a night-cap, with broad tapes to tie on the forehead and

beneath the chin (see *cut*). But if compres-

sion be necessary, either on the forehead or on the temples, then the form of bandage represented below must be used. It consists of a long strip of Calico, divided longitudinally, so as to leave a

space (*a*) in the centre, and form two tails (*b b b b*) at each end. In applying it, the uppermost tails are first passed behind the undermost, which are then tied at the back of the head; after which, the uppermost tails are carried upwards, and tied at the top of the head (see *cut*). When the strip of cloth of which this description of bandage is made is six or eight inches, instead of three inches in breadth, it is admirably adapted for confining dressings upon the fore part of the head; or on the hairy scalp; or upon the sides of the head; and it looks neater than the night-cap. In applying it, the unsplit part is placed on the head, and the two posterior tails are carried downwards, and tied or pinned at (*a*), under the chin; whilst the anterior tails are carried backwards, and pinned at (*b*). It

thus applies closely over every part which it

covers. By reversing this bandage, it serves in cases of wounds or sores on the back of the head.

c. Slinging the arm. In cases of injuries of the arm, the fore-arm is frequently required to be supported in a state of flexion by a Sling, the simplest of which is a handkerchief, folded into a triangle: but it is seldom well applied. One end of the triangle should be passed between the arm and the chest of the invalid (*a*), (see *cut*), whilst the other (*b*), carried round the arm, and spread so

as to reach from near the elbow to the wrist, should then be taken upwards to the opposite shoulder, carried behind the neck, and tied as represented at (*c*). The Sling should be worn no longer than is absolutely necessary, as the long retention of the arm in the bent position causes a contraction which is extremely difficult to be overcome.

d. Bandaging the trunk. For retaining dressing, or blisters which are to be kept open upon the chest, either in front or upon either side, such a bandage as that represented below must be used. It consists of a flannel or a calico band (*a*), six or seven inches broad, which goes twice round the body, and is pinned in front, or tied with tapes; and is kept in its place by two strips (*b b*) of

the same material as the broad band, pinned to it before, and also behind, as at (*c c*). When it is employed for retaining a compress over a protruded navel, additional straps are pinned to the under margin of the broad band behind, thence they are passed between the thighs, and pinned to the band before.

When the operation of tapping is determined upon, a band should be ready prepared for affording pressure during the flowing of the fluid, and to prevent the faintness which is apt to occur when no pressure is made upon the belly. It should consist of a strip of flannel, a foot and a half broad, with the ends split, and the middle portion made to fit the convexity of the belly, by triangular pieces being cut out, and the cut edges joined. A hole should be made in the centre of the bandage to admit the passage of the instrument which is to be used.

Besides the employment of bandages in wounds, sores, and operations, they are sometimes serviceable in general diseases. Thus, in the commencement of Dysentery, a flannel-roller, properly applied on the trunk of the body, has been found very beneficial; but, in order to render it useful, it should be applied in the following manner. One end of the roller being placed obliquely upon the loins, the first turn of it is carried round the upper part of the belly: it is then crossed down to the lower part, and again rolled gradually upwards, so as to produce a firm but equable pressure over the whole abdominal surface.

A similar application of a flannel-roller is very useful for females of lax and delicate habits, in whom the abdomen becomes pendulous after the birth of two or three children. It is preferable

to any of the numerous forms of stays which have of late years been invented to afford support in such cases. The bandage ought not to exceed five inches in breadth, as, when broader, it does not apply so closely to the convexity of the part which it is intended to cover as the narrower bandage.

CHAPTER VII.

DIRECTIONS RESPECTING THE GENERAL MANAGEMENT OF CONVALESCENCE; AND OF DIET IN DISEASE AND CONVALESCENCE.

In numerous instances, much hazard often still exists after disease has disappeared, and when the patient is declared convalescent: and as this period, in the removal of disease, is left to the management either of the patient himself or of his friends, some general remarks respecting it, and also in reference to particular diseases, are requisite.

In every recovery from sickness, whether external or internal, before the salutary advantages obtained from the treatment be confirmed, the organ or part which has suffered must be either left at rest or be used, according to the nature of the case. Thus, if any part have suffered from inflammation, it must not be used for some time after the inflammation is subdued. If the eyes have suffered, the person must neither read nor write, nor expose the eyes to the heat of the fire, nor to a strong light, until some days after every trace of the disease has disappeared. If the arm

has been affected, it must be kept at rest; and if the leg, not only should walking be refrained from, but the limb should be placed rather higher than the trunk of the body. If the previous disease has affected the brain, every mental exertion must be avoided; and so on, whatever may be the organ which has especially suffered. Even when the exercise of the organ is resumed, it should not be carried to fatigue, nor, on any account, should it be such as to produce excitement. At the same time, it must not be forgotten that, in the treatment of external injuries, when it has been necessary to keep the limb long in a sling, in one position,—as, for instance, in fractures, —the muscles which bend the arm acquire from the habit a contraction which cannot be overcome by the antagonist muscles, owing to the length of time they have been on the stretch weakening their contractile power. The arm, therefore, should be frequently taken from the sling, and, being rested upon the elbow, a moderate weight should be held in the hand, and friction with oil employed upon the contracted muscles. It is true that surgeons usually give directions for this operation, before they quit the management of the case; but surgeons, as well as physicians, are sometimes dismissed before the convalescence is complete; on which account, arms and limbs have remained contracted for life, from a want of the knowledge

necessary to counteract the evil at an early stage.

I say nothing respecting the continuance of remedies during convalescence from many diseases, except respecting the necessity of regulating the bowels.

The most important part of the management of convalescence certainly refers to *air, exercise,* and *diet.* The errors daily committed, in all of these matters, exert the most powerful influence in retarding complete restoration to health; and often, indeed, induce evils of a more formidable kind than the diseases from which the patients have just emerged.

In every convalescence, whatever may have been the nature of the disease, if it has been so severe as to wear down the strength of the invalid, country air is essential. The Benevolent Author of our existence has made medicinal the hills, the vales, the groves, and all the harmonies of Nature; and in the repose of these man finds a balm, not only for the wounded spirit, but for his stricken body. When emerging from the bed of sickness, the limbs scarcely able to perform their office, and the mind still looking back upon the turbulence, the noise, and the vexations of business, with disgust; the breath of dewy morning, the sidelong beams of the rising sun throwing the shadows of the trees across the glittering meadow, the music

of some neighbouring copse, mingling perchance with the gurgle of a brattling stream, convey not only more heartfelt delight to the mind than the richest gifts of smiling Fortune, but act as the most powerful restoratives, in reinfusing fresh vigour and energy into the powerless frame. In convalescence, therefore, the choice of a temporary residence in the country is of much importance.

It has been often supposed that a situation on an elevated spot above a marsh is not influenced by the pernicious vapours from the marsh. Many instances might be adduced to demonstrate the fallacy of this opinion: it is only necessary to mention a few. At Neuville-des-Dames, above Chatillon on the Indre, more fevers prevail than close to the marshes which exhale the Malaria: and, at Malta, the Malaria produced on the beach beneath a cliff causes no bad effect on the spot itself, but affects a village above the cliff so severely as to produce its occasional abandonment*. It is supposed that this depends on currents of air carrying the concentrated Malaria to the higher grounds. But, whatever is the cause, the necessity of avoiding such spots is evident.

The distance to which Malaria may be confined, sufficiently concentrated to cause infection, must vary, owing to many causes breaking or

* Macculloch on Malaria.

obstructing the current; but, on an average, in Europe, it has been estimated to be 1400 to 1600 feet in elevation, and 600 to 1000 feet in a horizontal direction*. In the West Indies, vessels have been infected 9000 feet from the marshes on the adjoining shore. When a breeze blows over a swamp, the deleterious vapour may be conveyed many miles. The Convent of Comaldules, which is seated on a high mountain, a league distant from the lake Aguano, is often infected by the wind which blows over the stagnant water of the lake. It is a fact which should be known, that the interposition of trees often forms a perfect safety screen in such cases.

If a convalescent is driven to seek a lodging in a swampy country, as the floors of houses have a strong attractive power for Malaria, the second floor is always more healthy than the first, and the third still more salubrious than either of the former. The bed of the convalescent should also be elevated from the floor.

When the disease has been inflammation of the lungs, and is apt to recur in cold weather, the winter and the spring should be spent in a more genial climate than that in which the invalid usually resides. If his residence, for instance, be in London, and if he cannot conveniently go to Madeira, he may winter with advantage at Cove,

* Monfalcon.

near Cork, or at Torquay, or Under Cliff in the Isle of Wight.

In health, diet may be left, in a great degree, to the inclination or the taste, as far as regards the quality of the food; and, although diseases occasionally originate from depletion, yet, in general, the appetite may be considered as the best regulator of quantity, when the food is simple, and the appetite is not pampered by high seasoning and rich sauces. In disease, however, a very opposite rule is to be observed: the regulation of both the quantity and the quality of the food is of the utmost importance. The taste is often so perverted as to desire that which would prove injurious; and, were appetite to be the guide of quantity, diseases would frequently not only be increased in severity, but life itself would be brought into jeopardy. Many substances, also, wholesome in themselves, are rendered unwholesome by cookery; whilst, on the other hand, the art of the cook, in many instances, corrects the insalubrious quality of the food: thence, dietetics and cookery are important matters of consideration, in the management of the sick-room.

As soon as solid animal-food can be taken with impunity, that which is most digestible should be selected. An opinion has generally prevailed that gelatinous matters, and meats which readily yield jelly—such, for example, as Veal and Lamb—are

the most easily digested, and, at the same time, are also the most nutritive. This is a mistake; for, with the exception of poultry, the flesh of young animals is stringy and of a lax fibre, and is even less easily digested than that of *two* old animals, which presents a great density of texture. The middle age of animals affords the most digestible food; and none is so much so as tender wether mutton of from four to five years old. On this account, mutton is better fitted for the convalescent than either lamb or veal, or even beef, which is of too firm a texture; for, although it cannot be digested so readily by a weak stomach, yet it is more nutritive than mutton. Venison is more nutritive and more digestible than mutton; but it is more stimulant. Glutinous and gelatinous food is also, in every instance, less digestible than solid meat, even when it actually contains more nutritive matter; thence it is ill adapted for invalids. Poultry is less digestible, and even less nutritive, than Game of a winged kind; but the latter is not adapted for invalids labouring under acute disease, on account of its stimulant properties. Game, however, is well adapted to bring up the strength of convalescents who have been greatly weakened by previous disease. Much, nevertheless, depends on the condition of the patient at the time.

Nothing tends to lessen the density of the

fibre of every kind of animal food so much as keeping it for a certain time before it is cooked. In this case, the tenderness is the result of incipient decomposition or putrefaction; but the utmost caution is requisite to prevent this from advancing so far as to present the slightest trace of taint, in the food of the convalescent. In the low state of vitality in convalescence, the change which commencing decomposition (putrefaction) causes, renders animal food, in that condition, a source likely to occasion either a relapse into the disease from which the patient has recovered, or to form a new disease. In examining the relative value of other articles of diet adapted for the sick and the convalescent, the first which presents itself to our notice is

Milk. — As Milk is the food of almost all young animals, its digestibility appears at once evident; and there can be little doubt that it is very digestible, when it is drank immediately after it is drawn from the udder of the Cow, or that of the Ass, or the Goat, before its components have time to separate. When this separation is effected, either spontaneously by time, or by means of Rennet or other agents, its properties are altered, and its digestibility is lessened.

Cream, when intimately united with the other components of milk—namely, the Curd, or the caseous part, and the Whey,—is not the same sub-

stance as after its separation: in the milk, it is more easily digested, and is the most nutritive part of the milk. But, in its separate state, it is ill adapted either for the sick or the convalescent. In the same manner, the separate *Curd* is indigestible; and *Whey* itself, although highly nutritive, yet, is flatulent: nevertheless, it is an excellent demulcent in many cases of disease. But none of the components of milk are equal to milk itself.

With respect to the value of different kinds of milk, that of the *Cow* is rendered lighter, and less oppressive to the weakened stomachs of invalids, when it is combined with an equal part of barley-water, and a small proportion of refined sugar. *Asses' milk* contains more saccharine matter than Cow's milk, and it is, consequently, more nutritious; but it is apt to cause diarrhœa in very delicate persons; therefore, it cannot be taken in the same quantity, nor can it be continued for the same length of time as the milk of the Cow. The milk of the *Goat* is still heavier than that of the Ass: it abounds with curd, and contains more oily matter than Cow's milk; yet it does not throw up so thick a cream.

Eggs.—It is not uncommon to hear that the yolk of a raw egg, beaten up with water and sugar, with the addition of a small quantity of white wine, is a light and nutritive aliment in convalescence,

and even in some states of disease: but *Eggs* are much less digestible in this form than when they are lightly boiled. In whatever manner Eggs are cooked, they are heating; and they always, more or less, favour costiveness.

Fish, at least the white kind, stimulates much less than the flesh of land animals; thence it is a proper food for those labouring under some acute diseases; and also for convalescents, when a sudden return to more stimulating food would prove hurtful. But it is not adapted for convalescents, when the object is to bring up rapidly the strength of debilitated habits. In such cases, as it leaves more feculent matter in the bowels than animal food, it may excite a new intestinal irritation, and cause an acute diarrhœa. The least heating kinds of fish are Flounders, Whitings, Soles, Haddocks, Turbot, and Cod; and, of these, the Whiting is the best for invalids emerging from any acute disease. The Flounder is next in point of digestibility; then follow in succession the Haddock, the Sole, the Turbot, and the Cod. All the coloured and the red-fleshed fish, such as the Eel, the Herring, the Mackerel, the Trout, and the Salmon, although more nutritive than white fish, yet, are more heating, and, consequently, they are not adapted for the sick-room.

Raw *Oysters* have been erroneously supposed to be both easy of digestion and nutritive. The

latter opinion is, in some degree, true; but the former is erroneous. Raw Oysters are less digestible than cooked Oysters. Both are improper for the sick and for early convalescents. Lobsters, Crabs, and other shell fish, are still more objectionable.

If Fish of any kind be admissible, it should be simply boiled: fried fish is even worse than the outside or the brown of roasted meat, for invalids.

It is also true that, as there is more feculent matter left after digestion from Fish than from the flesh of Land Animals, it is not well suited to cases in which the bowels have been the seat of disease, and remain in an irritable condition.

In reference to *vegetable diet*, it is only the mildest description of esculent roots—namely, Carrots and Turnips—and a few esculent herbaceous plants, such as the Cabbage, Brocoli, Cauliflower, and Asparagus, that are fitted for the use of the sick. In preparing all of them for the sick-room, they should be well boiled in two distinct waters, until they are soft and very soluble, and in a state not to leave undissolved any thing which could act as a mechanical irritant on the intestinal canal. When properly cooked, they are moderately nutritive, and free from any stimulant properties, and are well adapted for the stomach of the sick, unless in cases in which the torpor of the stomach is such as to permit them to run into the acetous fermentation and to prove flatulent.

With respect to *Fruits*, they produce the most diversified effects; and, consequently, are more or less proper for invalids, according to circumstances, either connected with themselves or with the condition of the patient at the time. The stone fruits, with the exception of the ripe Peach, are to be rejected. The apple tribe, except very soluble Pears, are still less admissible. The Apple, however, when roasted, and when the seeds and the hard central parts, as well as the skin, are removed, is less objectionable; and, as it possesses laxative properties, the roasted Apple is well adapted for the sick, when food is at all allowable, and when the bowels are torpid. The Orange, when fully ripe, is grateful and wholesome to all invalids, and is only equalled in these qualities by the Grape: but, in using the Orange, the pulp should be rejected. Care, also, should be taken not to swallow either the skin or the seeds of the Grape. Strawberries are little stimulant, of easy digestion, and more cooling than the other small fruits; but Currants and Gooseberries, and even Raspberries, are not free from objection for invalids labouring under acute diseases.

With the exception of *Oat* and *Wheaten-bread*, all the varieties of farinaceous aliments may be regarded as modifications of Starch, containing little nutritive matter, and therefore well adapted for the sick-room. It has been supposed that

Arrow-root, Sago, Tapioca, and similar substances, are very nutritive, because they form mucilages with boiling water: but this is not the fact; and were they very nutritive, they would be ill adapted for invalids. Rice, in every case where the stomach is in an acescent state, is preferable to the other farinaceæ.

The farinaceous food, which is ordered in the convalescence of children from acute diseases, is often made of bread, so as to constitute *Pap*. No description of food has a greater tendency than this to become sour: a quantity only sufficient for a single meal, therefore, should be made at a time; for what remains is always sour before the next meal; and even if the quantity be small, and it be mixed with fresh Pap, it communicates its faculty of becoming sour to the whole mass.

FLUID ALIMENTS.

Water.—The best and the most universal drink for the sick is *Water*: but the qualities of Water differ, according to the source whence it is procured. The fewer foreign ingredients it holds in solution, the greater are its diluent properties: thence, either distilled Water, or Rain or River Water filtered, are the only kinds proper for the use of the sick-room. Hard-water, under whatever name it is found, whether as Spring-water, or Pump-water, or Well-water, should be excluded. The impu-

rities of River and Rain Water are merely held in suspension; consequently, they are readily removed by filtration.

Water itself is aliment: many individuals, under certain circumstances, have lived for a considerable time upon it alone. Those who live chiefly on animal food require more drink than those who eat much vegetable matter. Water composes the greater part of all the fluids of the body; namely, the blood and the secretions; and when it is withheld, these become too acrid, and act almost as poisonous agents upon the nervous system.

The influence of Water on the animal economy may be regarded in two points of view:

1. As an article of diet.
2. As a medicinal agent.

1. As an *article of diet*, in health, Water is the beverage provided by Nature for all animals, man not excepted. The sensation of thirst is the natural call for fluids, either to assist digestion, or to allay a dry, hot condition of the mouth and the gullet. The consequence of not satisfying this call, is fever of a nervous kind; and, if it be long resisted, inflammation of the air passages. In a healthy condition of the body, diluting fluid is requisite to obtund over-stimulant matters, which, without such dilution, tend to induce fulness and an inflammatory condition; and death soon follows

the total abstinence from fluids. On the other hand, too much fluid is injurious; as it promotes spontaneous chemical changes in the contents of the stomach, and induces dyspepsia. For all the purposes of dilution, *in health*, Water is adequate, and it is the only truly wholesome beverage.

2. As a *medicinal agent*, Water is demanded in every disease in which a dry skin and an elevation of the natural heat of the surface, constituting fever, are present. In this case, the desire is for cold water, or cooling fluids; and it should always be indulged. The degree of thirst is generally in the ratio of the degree of fever which is present; and the supply should be adequate to the demand. In a hot state of the body, if the perspiratory function be impeded and the skin dry, the best means of counteracting this, and of inducing perspiration, is a sufficient supply of cold water. This is so obvious, that a learned physician wrote a book to prove that "cold water is the only true remedy for fever."

Thirst is also the result of excessive perspiration, owing to the waste of the fluid part of the blood which that causes; and tepid, bland drinks, in preference to cold water, are then requisite, not only to supply this waste, but also to maintain the perspiratory function now in operation. In such cases, however, tepid water alone is apt to excite nausea; consequently many kinds of dilu-

ents are employed in diseases: but, nevertheless, it is the Water which they contain that is the beneficial agent. It is only necessary to examine briefly the qualities of the various kinds of beverages proper, and generally employed, in the sick-room.

a. Toast-water is one of the simplest substitutes for simple Water. The water takes up the colouring matter and the flavour of the bread, which should not be charred: the Toast-water is therefore a good substitute to those who are not fond of simple water.

b. Barley-water, when properly prepared (see *Cookery*), which it seldom is, forms a useful beverage in the sick-room. It is slightly nutritive, owing to its containing a small portion of gluten, in conjunction with fecula and sugar. It is one of the oldest* and one of the best diluent demulcents; diluting at the same time that it softens the acrimony of the secreted juices of the stomach, in febrile diseases.

c. Gruel, whether made of Groats or of Oatmeal, is less mild and demulcent than barley-water; and it is more likely to undergo the acetous fermentation in the heat of the stomach; a circumstance which is greatly favored by the sugar and butter which are sometimes added to

* It was recommended by Hippocrates.

it. Unless Gruel be very thin, it can scarcely be regarded as a diluent; and when thick, it is too heating an aliment for patients labouring under febrile symptoms.

d. Tea, in the form in which it is usually taken, is too stimulant and astringent to be a good diluent; and, when it is strong, the narcotic property which it possesses renders it improper for most invalids, whatever may be the nature of their diseases. As it is, nevertheless, agreeable to most palates and very refreshing, it may be taken in moderate quantity, provided it be not strong, without any hazard: but it should not be taken soon after a meal, in cases where the stomach is weak; as it retards digestion, and causes a sensation of fulness. In febrile cases, a cup of Tea, with the usual additions of Sugar and Milk, poured into a tumbler of cold water, forms a most agreeable and refreshing beverage. Green tea is extremely apt to cause wakefulness and nervous feelings in many persons, especially in those labouring under diseases of diminished excitement; indeed, under any circumstances, it is scarcely fitted for the sick-room.

e. Sage, Balm, and *Mint Teas* are often substituted for common Tea. Each of them undoubtedly allays the irritability of the stomach, in some cases; but, as general beverages in disease, they are less useful than toast-water. *Raspberry*

Vinegar, Lemonade, Tamarind Tea, Apple Tea, and similar compound diluents, should never be administered, without the consent of the medical practitioner. If a patient be taking an antimonial, they will excite vomiting; if a mercurial, griping; and they are equally incompatible with many other medicines, and with many conditions of the stomach in disease. They are a description of beverage greatly recommended, and largely distributed, by the Lady Bountifuls in the country, and have been frequently productive of serious mischief.

f. Coffee is more heating, and, consequently, less admissible than tea: and *Cocoa* and *Chocolate* are still more objectionable than either, in the sick-room.

I make no comment upon the use of *Spirits,* or of *Punch,* or of *Wine,* or *White-wine Whey,* as none of them ought ever to be administered in disease, except by the special order of the medical attendant: and this remark applies to *Porter, Ale,* and all other fermented liquors.

With respect to the number of meals, and the periods best adapted for taking them, it is scarcely requisite to remark, that, although, in health, three moderate meals, at proper intervals, are customary, and well adapted for the support of the frame, yet, under the changed condition of the system in disease, it would be improper to take

any regular number of meals, or to observe any stated periods for taking them: thence no general rules can apply; and the circumstances under which nutriment is requisite in disease, are as much within the province of the Physician as the administration of medicines.

As a general rule, in the decline of diseases, and on the approach of convalescence, when the desire of taking food returns, the best time for the principal meal, *Dinner*, is about two hours after noon. If the breakfast be taken at nine o'clock, and the evening meal at seven, the hour of two is the middle period of the day; so that, when dinner is taken at that time, the intervals between breakfast and dinner, and dinner and supper, are not only equal, but neither is too short to limit the complete digestion of the previous meal, nor too long to injure the powers of the weakened stomach by protracted fasting. There is nothing more important than the regulation of diet in the decline of diseases; and nothing is more difficult to enforce, as the appetite, when it returns, generally becomes very sharp and importunate.

All acute diseases require, more or less, abstinence, especially when the object of the treatment is to lower the system; and in some chronic affections abstinence is almost as essential. If this be true, the necessity of the strictest observance of the directions of the physician on this subject must

be obvious. It is one, however, which is not only neglected, but is often combated both by nurses and friends; and indulgences, which are supposed to be of too trivial a nature to cause any injury to the sick, have often been followed by fatal effects. I have seen cases of convalescence from fevers suffer most severely from a single improper meal; in one instance, in which the relations of the patient were justly assured that all danger was at an end, a dinner of *bacon* and *beans* brought on symptoms, which terminated fatally in twenty-four hours.

But, although abstinence be requisite during the existence of an acute disease, yet, it is injurious when it is too rigidly maintained, after convalescence is actually formed: it often induces a new train of symptoms, not very unlike those for which it was properly prescribed, and the removal of which it has aided; namely, acceleration of the pulse, increased impetus of the heart, headach, and even delirium. As health returns, and the functions of the stomach are restored, the appetite for certain kinds of food is frequently the best guide which we can follow in the selection of that suited to the circumstances of the patient: but, before indulging it, the acquiescence of the Physician should be obtained. It is, indeed, not more the duty of the Physician to prescribe remedies for the cure of diseases, than to recommend that

kind of diet which is the best suited for each individual case; nevertheles, a few general rules, in reference to the diet proper in certain classes of diseases, may prove highly serviceable when a medical adviser is not at hand to direct it.

a. GENERAL DISEASES.—Happily, in *febrile affections*, the appetite of the invalid is not in a condition to desire food; and no stronger demonstration can be required of the impropriety of forcing it upon him under such circumstances. Simple fluids, such as diluents, are all that he desires; all that the stomach can bear; and such alone should be administered in fever, before that low condition of the system, which demands the use of wine or other stimulants, supervenes. In these cases, when the patient desires more nourishment than is usual, animal food ought not to be given, unless by the direct recommendation of the physician. Indeed, in general, the inclination of the invalid happily revolts from it, as much as experience condemns its administration. I have, nevertheless, seen strong animal broths forced upon patients labouring under fever, and have observed much mischief to follow.

While febrile symptoms are present, farinaceous matters, little nutritious, such as Barley-water, Gruel, Arrow-root mucilage, or Sago, acidulated with lemon juice, and sweetened to the taste of the patient, are most suitable; but even

these should be given in small quantity, and at considerable intervals. The beverage generally most agreeable, and also most salutary, to those suffering under fever, is cold water: but a cup of tea poured into a tumbler of cold water is often preferred, and is unexceptionable. Ripe fruits are grateful; but they should be taken with caution. No solid matter should be ventured upon until the febrile symptoms have abated.

In *miliary* fever, the diet should be purely farinaceous, and somewhat acidulous.

In the decline of fevers even, as I have already remarked, although the severity respecting diet should be relaxed, yet much danger may result from mistaken kindness and over-zeal, in urging animal and stimulant food at too early a period of the convalescence. Indeed, the necessity of caution at this time is greater than during the continuance of the fever; and the more acute it has been, the greater must be the caution, especially if the treatment has been of an evacuant and lowering description. No error is greater than supposing that debility is always to be removed by nourishing and stimulant food, and wine or other exciting beverages; and this caution is more requisite in convalescence from acute than from chronic diseases. It is much safer to confine the diet, for some time, to vegetable matter only; and, in the early stage of convalescence, even that should be

moderate in quantity; a rule still more requisite to be observed in the transition to a more substantial and stimulant diet.

The first change of diet, in the decline of fevers, should be to another article of the same kind of food which was allowed in the disease: for example, from simple *Arrow-root mucilage* to *Arrow-root and milk*, or to some other of the farinaceous compounds; whilst, at the same time, *Asses' milk* may be given, in small quantity, in the morning. *Rice*, one of the farinaceæ, is generally supposed to be astringent; but this is a mistake. It forms an excellent diet in all cases of early but decided convalescence. It should be well boiled, and mixed either with broth or beef-tea, or gravy which has been cooled and the fat taken from it. In the transition to animal food, *Beef-tea*, *Chicken-broth*, and *Mutton-broth*, and other liquid animal decoctions, should be first resorted to; then *white fish*, simply cooked; for, although fish is less digestible than animal food, yet it affords much less stimulant nourishment: it is therefore better fitted for the early stage of convalescence. When convalescence is completed, a more generous diet is admissible.

With respect to beverage, *Water*, *Toast-water*, or *Lemon-peel-water*, is sufficient, until the medical attendant declare that a little wine is requisite.

The nature of the Wine, both when it is ne-

cessary during the progress of the disease and in the convalescence, is of some importance. The kind and the quantity of Wine, at both periods, is usually fixed by the Physician; but when this has not been done, in convalescence from fever, it may be assumed that Sherry and sound Claret are preferable to other wines. The quantity for adults may range from half a pint to a pint, diluted with water, according to the degree of debility. The age of the patient, however, and his previous habits, must be taken into account, in determining both the quality and the quantity of the wine. Young persons are more easily excited by wine, and they rally more rapidly from the exhaustion of fever, than adults; consequently they require less wine in proportion; and its use may be sooner discontinued. Claret is the best wine for the young. Those who daily take from a pint to a bottle of Port wine when in health, require more wine than the temperate, both during the fever and in convalescence. The use of the wine must be gradually withdrawn, as the health becomes confirmed.

In convalescence from *fever*, it is an error to permit the patient to get up too soon. He should not leave his bed until his strength be considerably advanced. No danger can result from too strict an observance of this rule; whereas much risk may be incurred by its neglect. Injury has also often

arisen from convalescents venturing out too early, during the cold weather of winter and spring. It has been truly remarked "that many persons, who have struggled through a most dangerous fever, have, from imprudent exposure to cold, been seized with intense inflammation in some organ, which has rapidly destroyed life*."

If the head has been much affected, every mental exertion should be refrained from during the convalescence; and, according to the degree of suffering in any local organ, precautions must be taken to guard that against a fresh attack of disease.

Eruptive fevers require more precaution, in convalescence, than general fevers, both as regards diet and exposure to sudden alternations of heat and cold. This is more especially essential after Measles and Scarlet Fever.

Measles are often followed by a distressing cough, and other symptoms of pulmonary inflammation; or by a harassing diarrhœa, which wears down the strength; or by inflamed eyes, catarrh, and obstinate toothach. In infants, *Canker of the mouth* occasionally makes its attack and proves fatal. All these affections, after Measles, might generally be prevented by taking care not to allow too soon a return to the use of animal food; or

* Cyclopædia of Practical Medicine, Art. *Fever*.

too early an exposure to cold or to night air. Even in summer, flannel should be worn next the skin for some weeks after the disease has disappeared.

Scarlatina is frequently followed by dropsical symptoms; which, however, might generally be avoided by the same attention to diet and regimen as after Measles. Attention to the state of the bowels is, also, essential; and the least deviation from their natural action should be reported to the physician.

Small Pox, when severe, and especially when confluent, is very apt to awaken into activity the dormant seeds of Scrofula, if any hereditary taint exists in the constitution; thence abscesses, ulcers, and swelled glands, make their appearance. These demand the aid of the physician or the surgeon. But, if the convalescent be properly dieted, and recourse be had to a change of air as soon as the strength of the invalid will permit, these evils may be avoided. The diet should be nutritive, but not stimulant; namely, milk, poultry, and mutton plainly cooked.

Erysipelas not unfrequently attacks convalescents from Small Pox, and other eruptive fevers. It should never be entrusted to domestic management. When it occurs independent of any prior disease, the same attention to diet and regimen is requisite as in other eruptive fevers.

The necessity of attention to diet, as a preven-

tive of *scrofulous* affections, is so well understood, that it scarcely requires to be noticed. It should be simple and nutritious, consisting of a larger quantity of animal food, in childhood, than would otherwise be required; and the cookery should be of the plainest description. Every kind of pastry and confections are highly injurious. For scrofulous children who have been lately weaned, milk, in which suet has been boiled, has been found useful.

In convalescence from actual attacks of *Scrofula* in any of its forms, the diet should be the same as that required to ward off the disease; but the quantity should be circumscribed, and considerably below the demand of the appetite.

Convulsions, it is well known, are not unfrequently the result of errors in diet, in individuals with an irritable condition of the stomach and bowels. Advice should always be demanded respecting the diet of those who are liable to, and who suffer from, convulsions; and it must not be supposed that, when they occur in children and have been subdued, a system of starvation is necessary to prevent their recurrence. As far as regards convalescence in such cases, it will be proper to bear in recollection the following rules. 1. When the patient is of a *full habit*, has a short neck, and a tendency to diseases of the head, the diet should be spare. The use of animal

food, indeed, in such a habit, should be *wholly* prohibited in childhood, and very sparingly employed by adults; whilst vegetables, farinaceous matters, milk, and weak broths may be allowed. When the habit of body is spare, and when languor and chilliness are present, the diet, although free from stimulus, yet should be nourishing, and consist of the lighter kinds of animal food; namely, poultry and fish, with a moderate share of vegetable matters. Under all circumstances, and at every period of life, fermented liquors and wine should be either wholly avoided, or very sparingly used, in almost all convulsive diseases connected with affections of the head.

In convalescence from some varieties of convulsive diseases, the nature of the diet must depend on circumstances which cannot be judged of by the attendants of the sick-room: thence it should be referred solely to the medical attendant. In *St. Vitus' Dance* (Chorea), for example, although a tonic plan of treatment may have been successfully pursued, yet the diet may be required to be mild, and wholly free from stimulus. No plan of diet, therefore, even when the convalescence is fairly established, should be determined upon without the advice of the medical attendant. The same precautions are proper to be observed in *Epilepsy*. As a general rule, an abstinence from animal food is, in every case, more or less necessary; the rule is absolute with respect to

fermented liquors, and wine and spirits. Whatever may be the nature of the diet prescribed, moderation also, as to quantity, is essential. The necessity for urging attention to this precaution is rendered greater, indeed, from the disposition of most Epileptics to exceed in this particular: nevertheless, no part of the injunctions of the physician are so seldom strictly complied with as those relating to diet. "If this cannot be accomplished," says Dr. Cheyne, in an excellent Essay on this disease, "it would be well that the physician at once should decline the care of an epileptic patient."

Attention to diet in *Hysteria* is most important. When the disease is connected with indigestion, the meals should be moderate, and rest in the horizontal posture indulged for an hour afterwards, and then moderate exercise taken. Fluid food, such as broths and gruel, are improper; yet animal food should be eaten only once a day. Tea and coffee should be very sparingly taken; and the simplest beverages, even water and toast-water, should be taken in great moderation after a meal, and should not be drunk during dinner. In delicate habits, a glass or two glasses of good Sherry, or a *small* quantity of brandy and water, may be taken after dinner. Malt liquor seldom agrees with hysterical habits.

In convalescence from Hysteria, change of scene and air are absolutely requisite. The mind

should be directed to solid studies, and every thing which can cherish morbid sensibility of the nervous system avoided.

In every disease of an inflammatory nature, the strictest injunctions of the physician should be observed; for much depends on the acute or the chronic character of the inflammation; the period of its progress; and the probable termination of the attack. When the inflammation is acute, complete abstinence, or at most a very scanty allowance of the mildest diet, may be requisite; whilst, should it be chronic or sub-acute, not only more nourishment, but even a liberal supply, may be allowable. Should it terminate in suppuration, in delicate habits, it may be necessary to prescribe both a nutritive diet and wine: but the physician or the surgeon only can determine these points; and the attendants of the invalid are responsible for strictly carrying into effect his orders. There are diseases in which the desire of the patient for food is not to be restrained, nor his inclination with respect to its quality to be opposed: but inflammatory affections are not of that class.

Dropsy.—An opinion was long maintained, that fluids are to be restricted to *dropsical* patients. No opinion was ever founded on more erroneous principles. Dropsical patients, indeed, should be allowed the free use of fluids. With respect to

diet, it should, generally speaking, be light and unstimulating: but much depends on the causes of the Dropsy. There is, however, less necessity for a rigid adherence to low diet in this than in other inflammatory affections.

In *Palsy*, abstinence from all stimulating food, solid or fluid, must be rigidly observed; and the restriction should not be discontinued in convalescence. At the same time, change of air and of scene is always of decided advantage. In every instance, an easy state of mind, and freedom from every source of irritation, as well as from the anxieties of business, are indispensable. The confinement of the palsy to any particular set of organs does not alter the necessity for these general cautions; but when exercise cannot be taken, owing to the lower limbs being affected, friction along the spine may be advantageously substituted for it.

Gout and Rheumatism. In no diseases affecting the general habit are abstinence and repose more essential during the attacks than in the two which head this paragraph, when they assume an acute form. When they occur in weakened or broken-down habits, it is too often supposed that the opposite plan of diet is to be pursued, and that stimulating food and a liberal supply of wine should be indulged; but nothing is more likely to prove injurious. As medical aid should

always be obtained whenever either disease makes its appearance, it is not my intention to aid, in any degree, the domestic or empirical management of them during the attacks; and I have nothing to add to what has been already detailed (p.177-182). The absurdity of the opinion that those who have frequently suffered from Gout or from Rheumatism should be able to manage themselves is too obvious to require refutation. An old gouty patient, who thought he knew his own constitution well, mentioned to his physician the common adage, that "he ought to be able to cure himself, as every man above forty is either a fool or a physician." The Doctor calmly replied, "Be assured, Sir, you are no physician."

When the paroxysm subsides, it is too customary to permit the invalid to glide into his usual habits with respect to diet and regimen; thence the plethora which originated the disease gradually returns; and, the same plan being continued, paroxysm follows after paroxysm, at shortening intervals, until scarcely any interval occurs; and life is sacrificed on the altar of self-indulgence.

For some weeks after the paroxysm of Gout has subsided, in a young or a middle-aged man, animal food should be sparingly taken, and fermented liquors altogether avoided. The idea of debility is the bugbear which the convalescent is most

afraid of; and, to keep the Gout from the stomach, wine is resorted to; and a supply of nutritive food, which oppresses the digestive organs and induces indirect debility, more hurtful than that which this erroneous plan of treating convalescence is intended to obviate, is indulged. There is a perversion in gouty or rheumatic subjects to be convinced of the truth of this doctrine; and the Physician who would endeavour to enforce its observance, if he depend for his subsistence on the favour of the public, would have little chance of having an attack of Gout himself from over-nutrition. Exercise, as far as the strength can bear it, is as essential as moderation in diet; and it should be taken on foot. No method of management is so likely to keep within bounds the nutrient, and to favour the excretory functions. The organs of the body are thus brought back to their natural and healthy condition, and maintained in it by the strict observance of the same plan, after all feelings of disease have disappeared. If due exercise be daily taken, with or without the use of the shower-bath and friction, the bowels will require no artificial assistance; and the skin will be preserved in that condition which is the accompaniment and the safeguard of health. If these rules be necessary after an attack of Gout, in one not hereditarily predisposed to the disease, it requires no arguments to prove

that their observance is much more essential in those to whom Gout has descended as a patrimonial inheritance.

When Gout has become habitual, invalids often despair of relief; and, regarding their cases as desperate, endeavour to keep up the *vis vitæ*, the constitutional energy, by recourse to artificial stimulants, such as brandy-and-water; and, when pain recurs, to allay it with a full dose of Colchicum. But it should be known, that such a plan is like throwing tar-barrels into a burning house; and that the opposite plan, if it cannot cure a disease of long standing, is likely to mitigate the attacks, to lengthen the intervals, and to ward off disorganizations, which can never be cured.

As the open state of the skin is essential for restoring health after an attack of Gout, the tepid shower-bath, or the vapour bath, proves highly serviceable in the management of the convalescence. They should be used in the early part of the day, and brisk exercise taken after them, in the open air; or, when the weather is unfavourable, friction with hair-gloves should be employed.

No doctrine is worse founded than that with which gouty subjects often console themselves:—"Well, if we occasionally suffer, Gout keeps off other diseases!" On the contrary, Gout weakens the constitution, and renders it susceptible to many other diseases, which rarely attack a healthy per-

son: nevertheless, there can be no doubt that the gouty paroxysm is intended to relieve a surcharged state of the system.

Morbid Corpulency generally originates in causes closely allied to those which occasion gout. This condition must not be confounded with that extraordinary natural obesity or fatness which occurs in some individuals, and which is neither inconsistent with health nor strength. As illustrative of this fact, I may notice the case of a German girl, mentioned by Mr. Wadd, in his work on Corpulency, who weighed 150lbs at four years of age, and 450 at twenty. Her physical strength was so uncommon, that, at six years old, she could carry her mother; and, when she attained to twenty years of age, she thought nothing of carrying 250lbs in each hand. Her arms measured eighteen inches in circumference, and the rest of the body was in proportion. She eat little, but drank a great deal. She was healthy, vigorous, and active; had all the attributes of womanhood at nine years of age; and suffered from nothing except shortness of breath on ascending a stair or any height.

Without alluding farther to such extraordinary growths, we find a cause of *morbid* fatness in that kind of excess of all the nutritive functions which may be regarded as an excess of health, if such an expression be admissible; but which, by

the deposition of fat loading the organs and impeding their functions, passes into a state of disease, consisting of defective strength, torpid bowels, a slow, languid pulse, a white, pasty condition of the surface, a low condition of the irritability of the frame, and somnolency. As this is usually the result of good living and indolence, it might be supposed that nothing is necessary to remedy the evil, except abstinence and activity. But, although these are the best preventives of overfatness, yet, when it really amounts to disease, medical treatment is as essential as in a fever or a dropsy. When it is fortunately removed, the return to any thing approaching to generous living should be very gradual: much fluid should be sedulously avoided; active exercise, even violent, must be taken daily in the open air; and the quantity of sleep restricted to four or at the most six hours in the twenty-four. I may here mention, that the idea of reducing obesity by bleeding and purging is founded on mistaken principles: fat people do not bear the former well, and they suffer from lowness to a degree which could not be anticipated from the latter.

Chlorosis, Green Sickness, is a state of the habit which seems to depend on an impaired condition of the blood itself. Its treatment is well understood, and recourse to medical advice should never be neglected; otherwise it may terminate

either in mental derangement or in sudden death. In convalescence from it, the diet should be mild and light, but nutritious; the exercise should be much within the limits of fatigue, and consist of both walking and horse-exercise, daily, in the open air: the body, more especially the lower extremities, should be warmly clothed: the mind ought to be amused; all sedentary occupations thrown aside; and confidence placed in the honour of the Physician, who should be made the repository of any mental anxiety, especially connected with the tender passion, which may be preying upon the vital energy of the body.

Men are, occasionally, liable to the disease, or at least to a malady closely resembling it: and it also, sometimes, although almost as rarely, occurs to married women. In these cases, the same plan of treatment, and a similar management of the convalescence, is requisite, as in delicate single women, or in young girls.

b. Affections of the Head.—Whatever may be the cause of *Apoplexy*, no disease requires more prompt and energetic treatment: the alarming nature of the symptoms is always sufficient to prevent any time from being lost, by attempts to relieve the sufferer without medical assistance. Should the attack not prove fatal at the time, and should it not be followed by Palsy, still, the utmost caution is requisite to prevent

a recurrence of the disease. It is scarcely necessary to insist on the strictest adherence to temperance, both as to meat and to drink; and the importance of daily exercise, after the attack is over; and indeed for the remainder of life. Prolonged study and intense thinking must be given up; the violent and exciting passions subdued; and even the pleasurable moderated. If the invalid, previous to the attack, was engaged in any occupation likely to impede the circulation of the blood in the brain, by obstructing its return to the heart, it should be given up; and if he has been a flute-player, that accomplishment must, also, be foregone, as the voluntary suspension of breathing after a full inspiration is likely to bring on another attack. Much sleep, also, must be avoided.

Inflammation of the Brain is one of those diseases which require, as observed respecting Apoplexy, the most energetic treatment. When convalescence has fortunately been established, the attention of the physician is still requisite, during several weeks, until complete recovery be fully confirmed; for the brain, after suffering from inflammation, is very apt to relapse into the same state, from the excitement of too full a meal, or over-exercise, or even slight mental exertions or emotions. On this account, the convalescent must be kept perfectly quiet, and completely free from the smallest excitement; and the strictest regimen

observed. His diet should not only be mild and unstimulating, but small in quantity; for, although circumstances may exist during the progress of the disease, which require that the strength of the invalid should be kept up, and even cordials administered, yet, all these cease when convalescence takes place. The dread of debility must altogether be set aside; and the renewal of strength left to the natural efforts of the constitution, as they gradually regain their powers.

In Inflammation of the Brain in children (see *Water in the Brain*, p. 163), the convalescence is slow. During its progress, the most unremitting attention is required to the state of the bowels; for which purpose the alvine evacuations should be daily inspected, and the least deviation from their natural state immediately mentioned to the medical attendant of the family. The diet in the early or active stage of the disease should be strictly such as conveys little or no nourishment into the system (see page 166); but, when the disease has run its course, and convalescence has happily commenced, it may be changed to Beef-tea, Asses' Milk, and Cow's Milk, lightened by means of a small addition of sugar.

Inflammation of the Eyes requires the same caution when convalescence is secured as other inflammatory affections; namely, quiet, great moderation in diet, and avoiding exposure either to

much light, heat, or cold, or whatever can stimulate the still highly excitable organ. When the disease assumes that virulent form which is termed *Purulent Ophthalmia*, the reasons for the necessity of a regulated temperature and free ventilation, generally enforced by the Surgeon or Physician, should be known to the attendants in the sick-room. Experience has proved that the enclosure of the bed-curtains, and immuring the invalid in a close, dark room, are always productive of the most pernicious effects. Fresh air and moderate light are essential in such cases; and, in fine weather, the patient should take exercise out of doors. The diet may be more generous than in simple inflammation of the eye.

When Purulent Ophthalmia occurs in infants at the breast, the intervals between the times of suckling should be lengthened; and when the breast cannot be withheld without causing much irritation to the infant, a gentle emetic should be occasionally administered to unload the stomach. The best emetic for this purpose is the Wine of Ipecacuanha, which may be given in doses of a tea-spoonful at intervals of fifteen minutes, until vomiting be produced. The eye requires much less clearing than is generally supposed: indeed, the purulent discharge forms a natural protection against the acrimony of the tears.

c. AFFECTIONS OF THE CHEST.—When conva-

lescence is confirmed after inflammation of the upper part of the windpipe (*Laryngitis*), the invalid should for some time be confined to an atmosphere not exceeding 60° of Faht.; he should avoid east and north-east winds, and evening air. The diet should be light, unstimulating, and moderate in quantity.

Croup. It is scarcely necessary to say, that, in a disease of the same membrane, extending, however, beyond the wind-pipe into the breathing or bronchial tubes, the same precautions with regard to temperature and diet are essential. In both diseases, if the health remains impaired, and the strength is not restored, a change of air has been found very serviceable. The new situation should be low, and sheltered from the east, the north, and the north-east winds.

Common Cold. This inflammatory affection of the same membrane (*Bronchitis*), sometimes assumes a low form, and leaves a much greater degree of weakness than the high inflammatory form of the disease which constitutes Croup. In this case, a teazing, irritable cough remains, which rarely disappears until change of air is obtained. The same diet and regimen are requisite as in the chronic form of the disease.

In Chronic Inflammation of the lining or mucous membrane of the air passages in the lungs (*Chronic Bronchitis* or *Catarrh*), if the invalid

cannot leave home, he should be confined to an apartment regulated to the temperature of 60°; and, during easterly winds, which are dry and irritant, the vapour of warm water should be diffused through the room, so as to soften the air as it enters the inflamed pulmonary tubes. The diet should be mild; but a total abstinence from animal food is not essential. Sudden transitions of temperature should be avoided, long after the convalescence is complete; and the surface should be kept uniformly warm, by a flannel shirt next the skin, and flannel drawers. The removal to a warm climate is often requisite after both forms of the disease: but, when circumstances prevent such a measure, the invalid should at all events change the air. The change to the distance of only a few miles often proves beneficial.

Inflammation of the Lungs (Pneumonia). In convalescence from this disease, the temperature of the room in which the patient sits should not exceed 60° Faht.; and it should be free from currents of air; but, at the same time, it should not be close. The necessity for continuing the same elevated position of the shoulders when in bed, which is demanded during the existence of the disease, remains even when the convalescence is advanced. The patient should be prevented from much talking, and from exerting any muscular motion which can accelerate the circulation. The diet should be of that de-

scription which will support the strength without exciting or producing repletion. The exercise should be regular, but not hurried nor violent; and evening air should be sedulously avoided.

When, in spite of these precautions, health does not completely return—but slight relapses recur as the weather becomes colder, or when north or easterly winds prevail—then a change to a mild climate for the winter season must be resorted to; and, when the invalid cannot go to Italy or to Madeira, no situation is so well adapted for such cases as the Cove of Cork.

Pleurisy.—Inflammation of the lining membrane of the chest requires the same attention to diet and regimen during convalescence as the last-mentioned disease, except that a greater strictness with regard to abstemiousness in food is required; the least deviation being likely to bring on a renewal of the inflammation. When the disease assumes a chronic character, and when the object is to remove fluid effused into the cavity of the chest, and pressing upon the lungs so as to circumscribe their action, the same degree of strictness with respect to diet is not necessary; but, as in this condition of the habit the Physician must continue his attendance, the regulation of the diet devolves upon him.

Angina.—In that condition of the habit, which is connected with a predisposition to gout, but in

which, instead of a regular paroxysm, the heart and the pulmonary organs become affected, and the disease assumes that form which has been denominated Diaphragmatic Gout *(Angina pectoris)*, the regulation of diet is of vital importance; and it should be of as low a standard as the constitutional powers will admit. It should not be of a description either to nourish much, or to augment or to cause fulness of habit: mild animal food, in moderate quantity, may be allowed; but the staple should be of a farinaceous kind: every stimulant, whether solid or fluid, should be avoided; and wine and malt liquors regarded as poisons. The invalid himself should be made aware, that whatever tends to excite or to hurry the circulation is calculated to bring on a paroxysm: nor is it sufficient that he avoids all stimulating viands and beverages; he should also be instructed that the same deleterious effects are likely to follow a full meal, even of the most proper and the mildest food.

The same attention to diet, both as regards quantity and quality, is essential in *Palpitations* depending on organic disease of the heart.

In no affection of the chest is attention to diet so important as in *Asthma*. Sir John Floyer, who himself suffered from the disease, recommends almost a degree of abstinence, which is correct in reference to quantity; but the diet, although of a light, yet, should be of a solid kind. This is es-

pecially necessary, when dyspepsia is present to aggravate and excite the disease of the lungs.

In *Hooping-cough*, the diet, whether the patient be an adult or a child, should be of the mildest description; and, perhaps, no nutriment is so well adapted to support the tone of the body, without exciting it, as milk. In infancy, nothing but the breast should be given; the system of the nurse being kept as cool by mild diet, and the mind in as tranquil a state, as possible. If convulsions occur, these sometimes depend on the nature of the milk; in which case the nurse should be changed. It is still customary with non-professional persons to consider change of air essential in Hooping-cough; but it is only after the malady has run its course, and convalescence is progressing, when the cough remains as a habit, that change of air is really beneficial. It is unnecessary to combat the absurd opinion, that a change even to a worse air is salutary.

d. AFFECTIONS OF THE STOMACH AND BOWELS. Although *acute Inflammation of the Stomach* rarely occurs, yet there is a chronic form of that disease, in which, during its actual existence, and also in convalescence from it, much of the safety of the invalid depends upon domestic management. Every source of excitement should be avoided; the sick-room should be airy, and its temperature that of summer. The food should be of the

blandest kind, and given cold, or even iced, and in small quantity; even when the convalescence is established, it should consist of farinaceous matters, mixed with small quantities of Beef-tea, or weak broths; and this severe diet should be persisted in for a considerable time after recovery.

Enteritis. When inflammatory action extends to, or exclusively exists in, the mucous lining of the bowels, constituting this disease, the diet, during the early stage of it, should be confined to cold water, or iced Almond-emulsion; after which, Milk and Barley-water, or weak Chicken or Veal tea, may be given in small quantities; namely, two or three table-spoonfuls, at intervals of three or four hours. Nothing stronger should be ventured upon, unless expressly ordered by the medical attendant.

Atonic Dyspepsia, or simple Indigestion. — During the attack, abstinence, to a certain degree, is necessary; but, if this is not essential, the diet should be somewhat stimulant, but simple; namely, a small cup of moderately strong coffee, with little sugar or milk; or beef-tea, with a small quantity of dry toast; and, as the stomach begins to regain its tone, a little animal food of easy digestion, such as mutton or poultry. More powerful excitants, in the form of condiments, as Cayenne pepper, Mustard, or high-flavoured dishes, must be avoided. All condiments, indeed, except salt,

are hurtful: and, unless the person has been accustomed to the use of wine, neither it nor brandy-and-water should be taken. If the tongue be moist and clean, this restriction may be relaxed; but not as long as it remains dry or furred.

During the intervals of the paroxysms of indigestion, attention to diet is of the first importance. As a general rule, the patient should be confined to a spare animal diet, with a moderate share of *well-boiled* vegetables, and a considerable restriction with respect to the use of fluids. Coffee, with little milk and sugar, is preferable to tea for breakfast: the bread should be stale or toasted, with a little fresh butter; but its quantity should be limited. In delicate habits, a small portion of light animal food is allowable; or a new laid egg, lightly boiled, may be occasionally taken. For dinner, mutton, venison, poultry, and winged game, are to be preferred; they should be roasted rather than boiled; and should never be dressed a second time. Fat meat; gelatinous meat, such as that of the young pig, lamb, and veal; salted or smoked meats, sausages; strong concentrated soup, mushrooms, truffles, and morels; fish, especially the coloured, as salmon, mackerel, and herrings; fish sauces; and melted butter; should be avoided.

The best vegetables are young Brussels sprouts, Cauliflower, Asparagus, young Peas, French beans, and very mealy Potatoes. Among hurtful vege-

tables may be mentioned, Beans, old Peas, waxy Potatoes, Jerusalem artichokes, and Cucumbers. Rice is an excellent substitute for fresh vegetables; but all pultaceous matters, pastry of every kind, dumplings, new bread, custards, creams, and cheese, are hurtful. Fruits should not be eaten after dinner, but in the early part of the day, and then in great moderation. The least injurious are Strawberries, the Mulberry, a ripe, juicy Peach or Nectarine, an Orange, if very ripe, and Grapes. The injurious are Figs, whether dried or fresh; Currants, Gooseberries, Apples, Plums, Cherries, Apricots, Melons, nuts of all kinds, and Almonds, unless they are very well masticated. Any fluid, and the best is sherry-and-water, should be taken after the meal, not during the intervals of eating. All sweet wines, ale, and mucilaginous and acid fluids, should be scrupulously avoided.

When indigestion is attended with pain, or that condition of the stomach which indicates a very irritable and sensitive state of its internal membrane, the diet must be suited to the sensibility of the organ, as well as to the wants of the system. The food should be of such a nature as to require the least action of the stomach for its digestion, and so soluble as to leave as little as possible behind it to act as a mechanical irritant. It should be partly animal, partly farinaceous, neither too fluid nor too dry; and the avoidance

of those substances enumerated as injurious in simple indigestion must be carefully observed.

Milk in all its modifications of preparation, either in its natural state, in conjunction with farinaceous matters, or coagulated as uncompressed curd, is the best diet in this form of dyspepsia, when it is severe. In milder cases, plain soups, well-boiled, tender vegetables, and mutton or poultry, are admissible. Sherry, hock, sound claret, weak brandy-and-water, alternated with good porter, in moderate quantity, are proper articles of beverage. The quantity should be small, not more than a spoonful at once, and frequently repeated; and the greatest care observed to masticate the food well.

When the condition of the stomach is that which is accompanied with cramp, and vomiting of glairy, viscid phlegm in the morning, especially in people somewhat advanced in life, and young persons of a cold, phlegmatic temperament, the diet should be of a dry kind, and consist chiefly of the lean of mutton and poultry, and vegetables sparingly eaten. Fish, milk, cheese, eggs, and fruit, should be avoided; and the quantity of bread limited. The meat should be thoroughly cooked, and always eaten hot: but it is less hurtful in a cold state than when twice cooked. With regard to beverage, coffee is preferable to tea for breakfast: dry wines, such as sherry or hock, or

brandy-and-water, in moderation, are allowable; but malt liquors, especially ales, are decidedly hurtful; indeed, they are often the exciting cause of the malady.

When the practitioner in attendance declares the disease to be seated in the first gut or *duodenum*, the meal, whatever it may be, should be within the range of the powers of the stomach; that is, it should not be sufficient to satisfy the appetite. It should be eaten slowly, well masticated, and with the mind completely disengaged. The same kind of food as in the last case should be selected; and, with respect to beverage, malt liquors are equally objectionable.

The proper application of a flannel-roller around the trunk of the body, in addition to the warm bath or fomentations, or other medicinal means, has been productive not only of great comfort to the invalid, but displayed the most important influence in forwarding recovery.

In adult cases, when the skin is cool, the countenance sunk, and the teeth are covered with a dark-coloured fur, and the stools are passed involuntarily, a little diluted wine, or white-wine whey, should be given; but it should be under the control of the medical attendant. In order to allay thirst, in the early stage of the disease, nothing is more grateful and salutary than small pieces of washed ice, taken into the mouth, and permitted

to dissolve slowly: it has never, as far as the author's experience extends, been productive of deleterious consequences.

Dysentery, which implies inflammation, acute or chronic, of the same membrane as in *Enteritis*, but confined to the larger and lower bowels, requires the diet to consist of the mildest farinaceous matters, strictly avoiding all solid animal food. It should be given in small quantity at a time, and the whole allowance for the day should be moderate. The farinaceous food should not be either solid, nor yet altogether fluid: the former may prove injurious as a mechanical irritant; the latter is apt to excite griping, from the extrication of much flatus. Besides fomentations, and other means likely to be prescribed by the physician, swathing the abdomen with a flannel roller, not applied so tight as to cause pain or uneasiness, is useful, both in affording support and preserving the temperature uniform.

Diarrhœa.—Much of the domestic, as well as the medical management of Diarrhœa depends on the nature of the attack, and its causes; but too much attention cannot be paid to the regulation of the diet. It should be both small in quantity, and mild in quality. In the early stage, and the acute form of the disease, Barley-water, Arrow-root made with water, Rice or Grit gruel, and light broths, are proper. In chronic Diarrhœa, Rice,

properly boiled and mixed with a small quantity of Beef-tea, forms an excellent diet, as it nourishes moderately, and leaves scarcely any feculent matter behind it. After a few days, if the Diarrhœa be of an acute kind, a small morsel of chicken or game, or of mutton, may be added; but it should be at first given only in the form of Panada; and afterwards roasted, removing the skin before it is eaten. Calves-foot jelly is more irritating to the bowels, and much less nutritive, than solid meat. Fish is still more irritating, owing to the large quantity of excrementitious matter which it leaves in the bowels.

In *Cholera*, convalescence is often tedious; and nothing is so likely to cause relapse as even slight irregularities of diet. For weeks after the feverish symptoms have disappeared, the diet should consist of a very moderate quantity of vegetable matter only. The feet should be kept especially warm, and the whole body clothed in flannel, to prevent that irregular distribution of blood which so strongly characterizes the disease.

After inflammation of the lining membrane of the cavity of the belly *(Peritonitis)* has been subdued, the invalid should still observe the strictest diet and regimen. He should return very gradually to the use of animal food and wine. The bowels should be moderately and daily opened, the feet kept warm, and the skin maintained in a healthy condition by wearing flannel next it,

for a very considerable time after every trace of the disease has disappeared.

Diseases of the Liver.—In all cases of recovery from these diseases, whether inflammatory or otherwise, every precaution should be taken to guard against the deleterious influence of alternations of temperature and also damp, by clothing in flannel next the skin, and shunning exposure to a north or north-east wind. The winter residence should be in a sheltered, mild situation; and, when expense is no obstacle, the patient should remove to a temperate climate for several successive winters. Errors in diet should be avoided; and fermented liquors, and stimulating beverage of every kind refrained from. When pains of the side continue, after all the other symptoms of the disease have disappeared, the introduction of a seton, if prescribed, should not be objected to; as the greatest benefit has often followed that mode of counter-irritation.

Such are the general principles for the management of convalescence in those diseases which are of most common occurrence. One thing still remains to be considered; namely, the means requisite, besides ventilation, for preventing the extension of infectious diseases, and for destroying the virus which may remain in the sick-room after these maladies.

I have already insisted on the necessity of preserving the sick-room free from all smells, and in as pure a state as possible: but this is difficult to be done, when typhoid fever is present, or when the disease which is under treatment is accompanied with ulcers on the legs or on other parts of the body; and the difficulty is increased when the complaint is Cancer, or when Mortification occurs. In such cases, Chloride of Lime should be sprinkled over the floor of the room; and dishes containing it mixed with water placed in different parts of it, and frequently replenished.

Whenever infectious or contagious fevers occur, Fumigations are employed to prevent the spreading of the deleterious effluvia which emanate from the bodies of the invalids, and the extension of the diseases.

They are also necessary after these diseases; for the tenacity with which the infectious matter adheres to the substances in the sick-room is scarcely credible. I have already mentioned (p. 49) a striking illustration of this fact in reference to Erysipelas; and many more, connected with other fevers, might be quoted.

It is often, therefore, of as much importance to purify an apartment and its furniture after the termination of an infectious disease, as during its existence. In this case, the Fumigation with Chlo-

rine about to be described should be used after the floor of the room and every solid thing in it have been washed with soap and water. The walls should afterwards be white-washed, or fresh painted or papered, and the room thrown open to the air for some time before it is again inhabited.

It may be said that *Fumigations* are not to be solely relied upon; and that they ought never to supersede ventilation and cleanliness. Whilst this must be admitted, it would be absurd to deny their utility; consequently, their nature and the mode of employing them should be understood.

Fumigations of the most varied kind have been suggested and employed for this purpose: namely, *Pastiles*, *Tobacco*, *Camphor*, *Vinegar*, *Ammonia*, the *Mineral Acids*, and *Chlorine*.

a. Pastiles, as disinfecting agents, are utterly useless: they are relics of an ancient custom of burning Frankincense and other odorous substances in vitiated air, to overcome the fœtor which is more or less present. They disguise unpleasant odours; but they accomplish nothing more. The infection remains not only unaltered by the diffusion of the most powerful aromatic vapours, but its deleterious properties are sometimes augmented by them.

b. Tobacco.—Although smoking Tobacco is very generally supposed to preserve those in the

habit of it from the influence of infection, yet, for the same reasons which should prevent confidence being placed in Pastiles, we may well doubt the efficacy of Tobacco.

c. Camphor has more pretensions than either of its precursors to the name of a useful article of Fumigation. It is much employed and confided in on the Continent; but the experience of the author, and of British physicians, does not permit him to acquiesce in the opinion that it possesses any power of destroying Infection or Contagion. Nothing is more ridiculous than the custom, which was at one time very general among females, and which is still continued to a certain extent—namely, that of carrying a Camphor-bag in the bosom, as a protection against infectious diseases.

d. Vinegar is, not without reason, regarded as possessing some chemical influence in decomposing infectious and contagious matters; and, consequently, it is almost invariably sprinkled over the floor of the rooms of those suffering under infectious diseases; or the vapour of hot vinegar is diffused through their apartments. It is thought to be still more salubrious, and a more powerful disinfectant, when it holds Camphor or Aromatic Oils in solution; thence the great popularity of the preparations called *Aromatic Vinegar** and *Thieves'*

* Henry's Aromatic Vinegar contains Camphor, and the Oils of Cloves, of Lavender, and of Rosemary.

*Vinegar**. The repute of the latter is founded upon a story, that four thieves, who plundered the dead bodies, during the plague at Marseilles, with perfect security, on being questioned respecting the cause of this impunity, confessed, on the condition of their lives being spared, that they attributed it solely to the use of *Aromatic Vinegar*.

Vinegar, in this state of combination, is extremely agreeable and refreshing, both to the invalid and the attendants of the sick-room. The benefit which it produces depends upon a certain degree of stimulus imparted to the sensitive nerves, which are generally in a low condition, in an infectious atmosphere: but, as a chemical agent, its powers are too feeble to be followed by much benefit. It is, however, always refreshing, and is much better adapted for overpowering the unpleasant odours of the sick-room than any of the former substances.

e. The most efficacious *Fumigation* which has yet been proposed is *Chlorine*. It was first suggested as a disinfecting agent by the French chemist Fourcroy, in 1791; and it has, since that time,

* Thieves' Vinegar, *Vinaigre des Quatre Voleurs*, contains the volatile oils of Wormwood, Rosemary, Sage, Spear Mint, Rue, Lavender, Calamus aromaticus, Cinnamon, Cloves, Nutmegs, and also that of Garlic, extracted from these substances by macerating them in strong Vinegar. After the fluid is filtered, Camphor, dissolved in Spirit of Wine, is added to it.

been very generally adopted. Chlorine is extricated from the decomposition of Muriatic Acid by Peroxide of Manganese; but this is too expensive a process for ordinary occasions. The best materials and the proportions of them, for extricating Chlorine at a cheap rate were ascertained by Dr. Faraday, in the disinfection of the Millbank Penitentiary:—namely, *two ounces* of powdered Peroxide of Manganese mixed with *ten ounces* of Chloride of Sodium (Sea-salt), and *six ounces* of strong Sulphuric Acid, diluted with *four ounces* of Water. This quantity of materials is sufficient for purifying a room forty feet by twenty. The mixture should be put into a porcelain cup or basin, which should be placed in a pipkin of hot sand. The doors and the windows of the room being shut, the Fumigation may be left in it for ten or twelve hours; after which, both the doors and the windows should be thrown open, to admit a current of air to pass through the apartment and carry off the Chlorine.

One objection exists to the employment of the above mode of extricating Chlorine in apartments which are inhabited; namely, its powerful irritant influence on the lining or mucous membrane of the air tubes in the lungs, and the cough which it excites. In order to obviate these inconveniences, the *Chloride of Lime* is employed; which, by attracting the Carbonic-acid of the air, and causing

the conversion of the Lime into a Carbonate of Lime, separates the Chlorine in a free state. The Chloride of Lime should be mixed with water, in the proportion of one part to forty of the water, in a flat dish or plate, so as to expose a large surface to the action of the air; and the dish holding this mixture should be placed on a table, on the *leeward* side of the bed of the patient. The floor of the sick-room should be also sprinkled with it; and rags, moistened with it, suspended in different parts of the room. The Solution of Chloride of Soda may be employed instead of the solution of the Chloride of Lime. The same chemical changes take place, and Chlorine is evolved. The solid furniture in the room should be previously washed with hot soap and water, and then with the solution of Chloride of Soda. or Chloride of Lime.

If the putrid odour in a sick-apartment do not arise from the general state of the system of the invalid, but from ill-conditioned ulcers and sores, these should be washed and poulticed with the solution of Chloride of Soda, which operates not only by destroying the fœtor, but by improving the condition of the sores.

With regard to the mode in which Chlorine operates, the most probable opinion is, that it decomposes the infectious matter, which is a compound. One principle of it seems to be Hy-

drogen; another, Ammonia; and a third, a fœtid volatile oil; besides the unknown Matter of infection. The Chlorine unites with the Hydrogen, and forms Hydrochloric acid, which combines with the second component of the infectious matter—namely, Ammonia—and forms Sal Ammoniac; the withdrawing of both of which from the air causes the precipitation of the volatile oil; whilst the Chlorine also neutralizes the real Matter of infection, whatever it may be; and thus the vitiated atmosphere is purified.

Chlorine, even when extricated from Chloride of Lime, or Chloride of Soda, is apt to excite coughing in those unaccustomed to breathe it. But the nurse should be made aware of this fact; and should so apportion the quantity of the materials on the first introduction of it into the room, that it may cause no such effect; and by afterwards adding to the number of the dishes in which it is distributed through the room, no inconvenience will result; the lungs being thus gradually accustomed to the irritant impression.

I have ascertained that the decomposition and consequent development of the Chlorine is much quickened by placing a piece of coarse Calico in the bottom of the vessel containing the Chloride of Lime or the Chloride of Soda and Water.

CHAPTER VIII.

COOKERY FOR THE SICK AND THE CONVALESCENT: USEFUL FORMS OF DOMESTIC MEDICINES.

THE cookery for the sick-room, and for the convalescent, is confined to the simple processes of *boiling*, *baking*, and *roasting*. Before entering into the details of Sick-room Cookery, therefore, it will be useful to offer a few remarks upon the principles which render these processes serviceable in the preparation of food.

1. *Boiling* softens the animal fibre, and enables it to be more readily and effectually acted upon by the juices of the stomach; but, at the same time, it robs it of those nutritive matters which are soluble in boiling water. Much depends, however, on the slow or the rapid manner in which the process is conducted. If the boiling be too quick, it coagulates the albuminous matter of the meat, renders the flesh hard, and consequently diminishes its digestibility. In boiling meat, the water should scarcely be brought to the boiling temperature; but it should be long kept at a lower than the boiling point of heat, or in that state which approaches more to stewing than to boiling.

The nature of the water is, also, of some importance. Beef or mutton boiled in hard water is always more tender and juicy than when soft water is employed; a fact probably depending on the solvent properties of the water increasing in the ratio of its density. Fish, on the contrary, is rendered firm in the ratio of the hardness of the water in which it is boiled. Thence, fish boiled in sea water, or in water containing much salt, is always firmer and more highly flavoured than that which is boiled in soft water.

Vegetables require rain or soft water; and, in general, they are rendered indigestible from being too little boiled. This is especially the case with respect to the Cabbage, the Cauliflower, Brocoli, Turnips, and Peas; which too frequently are cooked rather to please the eye, than to afford nutriment. In the sick-room, vegetables too little boiled prove highly injurious.

2. The process of *Baking* is inadmissible for the preparation of animal food for either the sick or the convalescent: but it may be employed in the preparation of light puddings for the latter. The surface of the puddings, however, should not be browned by the aid of butter.

3. *Roasting* softens the tendinous parts of animal food better than boiling; and it retains more of its nutritive principles: thence, if it be neither too little nor too much done, roasted is

more nutritive than boiled meat, but it is less easily digested. This fact is demonstrated by the comparative loss which takes place in these two modes of cooking: it has been ascertained that Mutton loses one fifth and Beef one fourth by boiling; but neither loses more than one third in the process of roasting. The digestibility of the meat, however, being in the ratio of the softness of the fibre, that property is increased by slow boiling. It has, of late years, been much the fashion to regard under-done roasted meat well adapted for weak stomachs; but no opinion is more erroneous.

The processes of *frying* and *broiling* are wholly incompatible in Cookery for the sick-room.

The Cookery for those actually suffering under the pressure of disease differs considerably from that which is required to repair the ravages of previous illness, and to restore the vigor and the strength of the body in convalescence. The following directions are therefore arranged under two distinct heads—namely,

1. Cookery for the Sick-room.
2. Cookery for Convalescents.

1. The *Cookery for the Sick-room* comprehends farinaceous preparations, animal teas, broths, milk, and drinks.

a. FARINACEOUS PREPARATIONS.

The whole of these may be regarded as modifications of Starch more or less pure. They are not capable of conveying much nourishment into the habit; and being mild, and completely devoid of stimulant properties, they are well calculated for the sick.

ARROW-ROOT MUCILAGE.

Arrow-root is a white, inodorous, insipid light powder, procured from the tubers of the Maranta *arundinaceæ*, or Arrow-root plant, manufactured in the West Indies, of which it is a native*. The powder is a pure Starch, which, although insoluble in cold water, yet forms a mucilage with boiling water. This *Mucilage* is made by rubbing the *Arrow-root powder* with a little cold water, in a basin, by means of the back of a spoon, until it is completely mixed with the water; then pouring boiling water over it, at the same time stirring it assiduously until a soft tenacious mucilage is formed; and, lastly, boiling it for five minutes. A table-spoonful of the *Arrow-root powder* is suffi-

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In the island of Portland, the farina of the roots of the Arum *maculatum*, Cuckow-pint, which grows abundantly there, is manufactured into Starch, and sold under the name of British Arrow-root. Much Potatoe Starch is also sold as Arrow-root. The fraud, however, is not a hurtful one, as the properties of these Starches do not differ.

cient to make a pint of the mucilage. It may be moderately sweetened, and rendered more palateable by the addition of a little lemon-juice: but Cinnamon powder or any astringent substance precipitates the starch, and destroys the smoothness of the mucilage; thence, if wine be ordered with it, Port-wine should not be used.

TOUS LES MOIS.

This is a species of Starch prepared from the rhizomes or tubers of some species of Canna, either C. *edulis* or *coccinea*, both of which are natives of Peru. It is converted into a mucilage, and used in the same manner as Arrow-root, over which it possesses no superiority. The great advantage of both, indeed, as articles of diet for the sick, depends on the small quantity of nutriment which they convey into the habit. It is often useful to satisfy the prejudices of the friends of invalids, by the appearance of supplying nourishment, when it would prove injurious.

MUCILAGE OF SAGO.

*Sago** is the pith of several species of Palms and Cycadeæ, natives of tropical climates: the

* There are three varieties of Sago known in European commerce: namely—1, *Sago of the Maldives*, in brownish-grey grains, possessing few of the chemical properties of starch; 2, *Sago of New Guinea*, in grains of a brick-red hue, passing to dull white: it is a nearly pure starch; 3, *Malacca Sago*, of which there are three kinds—*a*. in fawn-coloured grains, passing into grey: a pure starch, containing

best is that made by the Chinese at Malacca, and known in commerce by the name of *Pearl Sago*. It resembles roundish seeds, of a brownish-grey colour passing to pearl-white, or brick-red passing into dull white. When soaked in water, at a moderate temperature, it absorbs from five to ten times its weight of water, swells, and becomes transparent. It consists of starch, with a small proportion of salt.

To make Sago into a proper *Mucilage* for the sick, an ounce or a table-spoonful of it should be macerated in a pint of water, in a pan placed on the hob, or on a *hot plate*, for two hours, and then boiled for fifteen minutes, stirring assiduously during the boiling. The Mucilage may be sweetened with *sugar*, and flavoured with *lemon-juice*; or *milk* may be added to it, according to circumstances. Like other feculaceous mucilages, it affords very little nourishment; and is, therefore, well adapted for invalids labouring under acute diseases.

MUCILAGE OF TAPIOCA.

Tapioca is the pith of the roots of Janipha *Manihot*, a native of Brazil, which, although combined with a poisonous principle in the fresh state,

more salt than the other varieties; *b*. in rose-coloured grains, in chemical characters the same as the former; *c*. in white grains, a very pure starch.

yet is easily freed from it by washing in cold water, after the roots are barked and crushed. The fecula is then dried and granulated. It resembles Sago; but it is less coloured, and in larger grains.

The mucilage of Tapioca is prepared in the same manner as that of Sago, and with the same proportions of Tapioca and water; but Tapioca is more soluble than Sago, and, consequently, requires only half the time for its maceration and boiling. It forms a semi-opaque mucilage, which may be sweetened and flavoured in the same manner as Sago.

GRIT-GRUEL.

Take three ounces of *Grits*, wash them well in *cold* water, and, having poured off the fluid, put them into four pints of *fresh* water, and boil slowly, until the water be reduced one half; then strain the whole through a sieve, to separate the mucilage from the undissolved part of the Grits.

OAT-MEAL GRUEL.

Take two ounces of *Oat-meal*, free from mustiness, and a pint and a half of *soft* water. Rub the meal in a basin, with the back of a spoon, in a moderate quantity of the water, pouring off the fluid after the grosser particles have subsided; and let this operation be repeated until no more milkiness is communicated to the water. Next, put the washings into a pan, after having stirred them well, in

order to suspend any fecula which may have subsided, and boil until a soft, thick mucilage is formed.

Both of these Gruels consist not only of the starch of the oat, but also of a small proportion of Gluten; thence they are more nutritive than any of the feculaceous mucilages. They may be sweetened and acidulated, or mixed with milk, according to circumstances. Butter and Honey, which are frequently added to these Gruels, are inadmissible in inflammatory diseases.

Besides being excellent demulcent articles of diet, these Gruels are usually employed as the vehicles for administering substances in the form of Glyster; for which purpose they are better adapted than the purer Starches, as they are not so susceptible of precipitation by astringent vegetable Infusions and Decoctions.

MUCILAGE OR JELLY OF ICELAND MOSS.

The *Iceland Moss* is a Lichen, namely, Cetraria *islandica*, which grows on mountainous, exposed situations in Iceland, in the north of Germany, and in many northern countries. It contains a bitter principle, which is useful in some diseases, but from which it should be freed, when it is to be employed as diet. This is effected by pounding the dried Lichen, and soaking it in tepid water, containing a small quantity of Carbonate of Soda, for twenty-four hours; and then pressing it for-

cibly in a coarse cloth: after which, if any bitterness remain, the process must be repeated.

The Moss, thus treated, is next to be put into water, in the proportion of an ounce of the Moss to a quart of water, then slowly boiled down to one half, and strained through a sieve. The mucilage may be sweetened and acidulated; or it may be mixed with milk, in the same manner as the mucilages already noticed.

Any portion of the bitter may be separated by regulating the period of the maceration. When the bitter is not objectionable, it has one advantage; namely, that of enabling the stomach to digest more readily the mucilage, by the tone which it affords to the organ. The idea that it possesses any specific medicinal virtue for the cure of Consumption is erroneous.

MUCILAGE OF CARRAGEEN—IRISH MOSS.

Carrageen is a Fucus, the Chondrus *crispus*, which grows upon rocks and stones in the sea, and is very common on the Irish coast. It has a tough, horny, flexible, crisped appearance, and almost wholly dissolves in water during boiling. One ounce of it, boiled in a pint and a half of water, is sufficient to form a semi-transparent, moderately consistent, nearly tasteless jelly; which, when sweetened and acidulated, or when mixed with milk, forms an excellent diet for invalids who require to have the strength supported.

MUCILAGE OF RICE.

Take one ounce of good Carolina Rice, and, having washed it, macerate it for three hours in a quart of tepid soft water, in a pan placed upon the hob, then boil the whole slowly for another hour, and strain through a sieve.

This Mucilage may be sweetened and acidulated, or mixed with milk in the same manner as the other feculaceous mucilages. It forms an excellent demulcent diet for the sick, especially in irritable states of the intestinal canal, and in diarrhœa: but it is a mistake to suppose that it possesses any astringent property.

The soluble part of the Rice is chiefly Starch, which it contains in the proportion of eighty-five parts in the hundred. The less soluble parts are about five per cent. of parenchymatous matter; an animalized principle, amounting to rather more than three and a half per cent.; and some Phosphate of Lime. It is the animalized matter which affords any nutritive property which the Rice possesses: but this is not taken up by the water in the above preparation; consequently, in a nutritious point of view, it is on an equality with the foregoing mucilages.

GROUND RICE MILK.

Take a table-spoonful of ground Rice, a pint and a half of milk, and half an ounce of Candied Lemon-peel. Rub the Rice smooth with the milk,

then add the Lemon-peel cut into small pieces; boil for half an hour, and strain whilst the milk is hot.

This is an excellent, nutritious beverage for the sick, when strict abstinence is not requisite, and for early convalescence.

SIMPLE BREAD PANADA.

Put any quantity of grated, stale Bread into enough of Water to form a moderately thick pulp; cover it up and leave it to soak for an hour. Then beat it up with two table-spoonfuls of Milk, and a small portion of refined Sugar, and boil the whole for ten minutes, stirring all the time.

This may be eaten by the sick, labouring under any disease in which abstinence is not strictly enjoined.

b. ANIMAL PREPARATIONS.

BEEF-TEA.

Take *half a pound* of good Rump Steak, cut it into *thin* slices, and spread these in a hollow dish; sprinkle a little salt over them, and pour upon the whole a *pint* of boiling water. Having done this, cover the dish with a plate, and place it near the fire for an hour; then throw the sliced beef and the water into a pan, cover it, and boil for fifteen minutes; after which, throw the whole contents of the pan upon a sieve, so as to separate the Beef-tea from the meat.

The quantity of water directed to be used is too little for the strength of the Beef-tea usually proper for invalids, but it is sufficient to extract all the soluble matter of the beef: and the tea can be reduced to the strength required by the addition of boiling water.

CHICKEN-TEA.

Take a small Chicken, free it from the skin and from all the fat between the muscles; and, having divided it longitudinally into two halves, remove the whole of the lungs, and every thing adhering to the back and the side bones. Then cut it, bones and muscles, by means of a strong, sharp knife, into as thin slices as possible; and, having put these into a pan with a sufficient quantity of salt, pour over it a quart of boiling water; cover the pan, and boil, with a slow fire, for two hours. Put the pan, then, upon the hob for half an hour, and strain off the tea through a sieve.

Both of these animal decoctions are of a strength proper for any invalid whose condition, during the progress of actual disease, admits of animal diet in its lightest form. When concentrated with some farinaceous additions, and slightly spiced, they are equally useful in convalescence.

VEAL-TEA.

This may be made in the same manner as Beef-tea, using a pound of Fillet of Veal, freed from

fat and sliced, and a *pint and a half* of boiling water, and boiling for *half an hour* instead of *fifteen minutes*. It may, also, be made with the same quantity of the fleshy part of a Knuckle of Veal.

By boiling down the Knuckle-of-Veal-tea, whilst the meat is in it, to one half, and straining, the tea gelatinizes; and, when it is poured into small cups, it will keep good for several days. By adding an equal quantity, or more of *boiling* water to a cupful of this jelly, a moderate quantity of Veal-tea for one individual is prepared in two minutes.

MUTTON-TEA.

This is prepared with a pound of good Mutton, freed from the fat and cut into thin slices, and a pint and a half of soft water, in the same manner as Beef-tea; but it requires to be boiled, after the maceration, for half an hour, before it is strained through a sieve.

If the invalid desire the addition of Barley; an ounce of good Pearl Barley, washed and macerated in boiling water for an hour, may be boiled with the Mutton-tea, and the undissolved Barley separated on straining.

c. PREPARATION OF BEVERAGES.

DISTILLED WATER.

This, the purest state of water, may be readily obtained by fixing a curved tin tube, three or four

feet long, to the spout of a tea kettle, and conducting its free end into a jar placed in a basin of cold water, and enveloped with a wet towel. The softer the water is, the better solvent it is of all soluble animal and vegetable substances; thence, Distilled Water, being free from every foreign ingredient, is necessarily the softest of all water, and consequently it is well adapted not only for diluting in febrile affections, but for pervading the minutest vessels, and improving their secreting powers. Its use is recommended in diseases of the Kidneys, in Gout, Scrofula, Consumption, and Cancerous affections.

Distilled Water is mawkish to the taste; but this is easily corrected by pouring it from one jug to another, successively, for ten or fifteen minutes, so as to involve in it a quantity of atmospheric air.

TOAST-WATER.

Toast thoroughly, but not to a cinder, half a slice of a stale quartern loaf, put it into a jug, and pour over it a quart of Water which has been boiled and cooled; and, after two hours, decant the Water from the bread. A small piece of Orange or of Lemon peel, put into the jug with the bread, is a great improvement to Toast-water.

The toast in this case communicates taste and colour to the water without affecting its diluent properties. The reason for employing water which has been boiled is to bring the fluid as near as possible to the state of distilled water.

Toast-water may be used *ad libitum* in every febrile affection. It diminishes the heat of the mouth, the throat, and the stomach; and, by sympathy, that of the whole body.

The temperature of Water, when low, is most agreeable to the palate, yet it should approach to that of the body; and, therefore, when the diluent influence only of Water is required, its temperature should not be under 60°, nor above 70°. When the heat of the body, however, is considerable, and the skin dry, in febrile diseases, Water at as low a temperature as it can be obtained in the fluid state may be used. For the Dyspeptic, Water as a drink should be either very cold or very hot. In Catarrh and Coughs the beverage should be tepid.

APPLE TEA OR WATER.

Slice two large, not over-ripe Apples, and pour over the slices a pint of boiling water. After an hour, pour off the fluid, and, if necessary, sweeten with a moderate quantity of refined Sugar.

LEMON-PEEL TEA.

Pair the rind of one Lemon, which has been previously rubbed with half an ounce of refined loaf Sugar, put the peelings and the sugar into a jar, and pour over them a quart of boiling Water. When cold, pour off the fluid, and add one tablespoonful of Lemon-juice.

ORGEAT.

Blanch two ounces of sweet Almonds, and four

bitter Almonds, beat them with a little orange-flower water into a paste, and rub this with a pint of milk diluted with a pint of water, until it forms an Emulsion. Strain and sweeten with sugar or Capillaire.

RASPBERRY-VINEGAR WATER.

This is merely diluted Raspberry-vinegar. It is generally made too acid.

All of these drinks are good diluents in fever, and may be taken at the pleasure of the invalid.

BARLEY-WATERS.

a. Simple Barley-water.

Take two ounces and a half of Pearl Barley, and four pints and a half of soft water. Wash first the Barley with cold water, to remove from it every foreign matter; and then pour upon it half a pint of the water, and boil for fifteen minutes. Throw this water away; and, having heated the four remaining pints of the fluid, pour them upon the barley, and boil down to two pints, and strain.

b. Compound Barley-water.

"Take two pints of simple Barley-water, two ounces and a half of Figs, sliced; five drachms of Liquorice root, sliced and bruised; two ounces and a half of Raisins, and a pint of soft Water. Boil down to two pints, and strain."

These decoctions are not only good demulcent diluents, but, in cases where a very moderate de-

gree of nutriment is not objectionable, they answer the purpose of diet.

Simple Barley-water, when mixed with an equal quantity of milk and a small portion of refined sugar, is a good substitute for the breast milk, for infants who are attempted to be brought up with the spoon.

ALMOND EMULSION.

Take one ounce and a quarter of Sweet Almonds, blanched; five drachms of Sugar; and a quart of soft Water. Beat the almonds with the sugar, in a porcelain mortar, into a smooth pulp, adding the water gradually, and stirring assiduously until the whole is added; then strain through linen.

An excellent demulcent in febrile affections.

MARSH-MALLOW-TEA.

Take four ounces of dried roots of the Marsh Mallow (Althœa *officinalis*); two ounces of Raisins, freed from the seeds; and five pints of boiling water. Boil slowly down to three pints, and, when the sediment has subsided, pour off the clear liquor.

An excellent demulcent drink in diseases of the kidney with a tendency to gravel.

LINSEED-TEA.

Take an ounce of Linseed, not bruised; two drachms of Liquorice root, bruised; and one pint of boiling soft Water. Place the jug containing these ingredients, covered, near the fire for four hours, and then strain through linen or calico.

The mucilage resides in the husk, and the fixed oil in the farina of the Linseed; and, therefore, the seeds ought not to be bruised. When Linseed is boiled, the fixed oil is extracted, and renders the Decoction both nauseous and stimulant.

Linseed-tea is a useful demulcent drink in Coughs, and affections of the urinary organs; but it should be made daily, as it soon gets ropy, and spoils.

RENNET-WHEY.

Infuse a moderate-sized piece of Rennet in a sufficient quantity of boiling water to abstract all the soluble matter; separate the fluid; and stir a table spoonful of it into three pints of Milk; cover up the mixture with a clean cloth, and place it before the fire until it forms a uniform curd. Divide this curd with a spoon, and, pressing it gently, separate the whey.

Good Whey should be nearly transparent, of a pale yellow colour, and should have a sweetish taste. It constitutes ninety-two parts in a hundred of the milk; and, besides water, contains sugar of milk and some salts. It is an excellent diluent in febrile affections. When boiled down to one half, it proves nutritive as well as diluent.

VINEGAR AND TAMARIND WHEYS.

A small wine-glassful of Vinegar, sweetened with a dessert-spoonful of Muscovado sugar, or two table-spoonfuls of Tamarinds, stirred into a pint

of boiling Milk, and the whole boiled and strained, form these Wheys. They are useful refrigerant drinks in febrile diseases.

WHITE-WINE WHEY.

Take two thirds of a pint of good Milk, and dilute it with as much Water as will make up the pint.

Take two glasses of Sherry-wine, or any other good White-wine, and a dessert-spoonful of Muscovado sugar.

Place the milk and the water, in a deep pan, upon the fire; and, watching the moment when it boils, which is known by a scum rising to the edge of the pan, pour into it the wine and sugar, and stir assiduously, whilst it continues to boil for twelve or fifteen minutes. Lastly, strain the Whey through a sieve.

This is an excellent mode of administering wine, in small quantities, in low fevers; and in cases which demand a moderate degree of excitement. It may be drunk, either cold or tepid, in a wine-glassful at a time.

MUSTARD WHEY.

Take half an ounce of bruised Mustard seeds, and one pint of Milk; boil them together until the milk is curdled, and strain to separate the Whey.

This Whey has been found to be a useful drink in Dropsy: it stimulates the kidneys; and, con-

sequently, augments the urinary secretion. It may be taken in a tea-cupful at a time.

MIXTURE OF SPIRIT OF FRENCH WINE.

Egg Brandy.

Take four ounces of French Brandy, four ounces of Cinnamon water, the yolks of two Eggs, half an ounce of purified Lump Sugar, and two drops of Oil of Cinnamon. Mix the yolks of the eggs first with the water, the oil, and the sugar, agitating assiduously, and then add the brandy by little at a time, until a smooth fluid is formed.

An excellent mode of administering brandy in the sinking stage of Typhus and other low fevers.

ARTIFICIAL GOATS' MILK.

Take an ounce of fresh Suet, cut into small pieces, and tie them in a muslin bag, large enough to leave the morsels free from the least degree of compression; boil this in a quart of Cow's milk, sweetened with a drachm of white Sugar-candy.

This is an excellent article of diet in scrofulous emaciation, especially when ordinary articles of food pass through the bowels nearly undigested; and also in the later stages of pulmonary consumption. It may be used for infants who are unfortunately attempted to be brought up by the spoon.

ARTIFICIAL ASSES' MILK.

Take half an ounce of Gelatine; dissolve it,

by the aid of heat, in a quart of Barley-water; add one ounce of refined Sugar; then pour into the mixture a pint of new Milk, and beat up the whole with a whisk.

It should be drunk warm, and exercise taken after it. This, however, is but a poor substitute for Asses' Milk; which is one of the best restoratives in convalescence from severe disease.

MILK AND SODA WATER.

Heat nearly to boiling a tea-cupful of Milk, and dissolve in it a tea-spoonful of refined Sugar: put it into a large tumbler, and pour over it two thirds of a bottle of good Soda-water.

This is an excellent mode of taking milk when the stomach is charged with acid, and consequently is apt to feel oppressed by milk alone.

BUTTERMILK.

When Buttermilk is newly churned, it is a wholesome, delicious, and cooling beverage in fever, or any disease of excitement; but, as it cannot be procured in London and other large towns, and not always in the country, the method of making it in small quantities, daily, should be understood. It is readily prepared by putting a quart of new Milk into a bottle which will hold a gallon, corking the bottle, and covering it with a towel in such a manner, that, by drawing alternately each end of the towel, the bottle can be

rolled upon a table. This movement should be continued until such time as all the butter is separated, which is known by its appearing in clots or masses swimming in the milk. During the rolling, it is necessary to open the bottle occasionally to admit fresh air into it, as that is essential for the formation of the butter. When the process is finished, all the butter should be carefully separated from the Buttermilk.

Buttermilk may be drunk *ad libitum*.

SAGO POSSET.

Put two ounces of Sago into a quart of Water, and boil until a mucilage is formed; then rub half an ounce of Loaf-sugar on the rind of a Lemon, and put it, with a fluid drachm (a tea-spoonful) of Tincture of Ginger, into half a pint of Sherry-wine; add this mixture to the Sago Mucilage, and boil the whole for five minutes.

This is an excellent cordial where acute diseases, not of an inflammatory kind, have left the body in a state of great debility. A large wine-glassful may be taken at once, at intervals of four or five hours.

LEMONADE.

Take the juice of two Lemons; add it to a quart of boiling water, having the rind of one of the Lemons in it, in a covered jar, and sweeten it moderately with refined Sugar, or Capillaire.

To be moderately drunk as a refrigerant in fevers.

2. The *Cookery for the Convalescent* comprehends Farinaceous and Animal preparations of a more nutritious and stimulant nature than is admissible for the sick-room; but, at the same time, considerably within that which is usual and not improper in a state of health.

a. FARINACEOUS PREPARATIONS.

These are not solely modifications of Starch; but they admit of the Gluten and other components of the *Cerealiæ*. They are rendered more nutritive by the addition of milk and other animal substances of a moderately stimulant character.

BOILED FLOUR AND MILK.

Knead any quantity of Wheaten flour with Water into a ball, and tie it firmly in a linen cloth; put it into a pan with water, and boil it slowly for twelve hours. Place it before the fire to dry; and afterwards, on removing the cloth, separate a thick skin or rind, which has formed, and again dry the ball.

A table-spoonful or more of this, grated, and boiled with a pint of milk, forms an excellent article of diet in convalescence from Diarrhœa, or from Dysentery, and in Emaciations.

ARROW-ROOT PUDDING.

Take a table-spoonful of Arrow-root powder, rub it with a little cold water in the same manner as in making the mucilage, and add to it, stirring assiduously, a pint of boiling Milk. With this

mucilage, mix the contents of one egg, and three tea-spoonfuls of powdered, refined sugar, which have been previously beaten up together. The pudding, thus formed, may be baked, or it may be boiled in a basin.

This is an excellent pudding for the early stage of convalescence: for a more advanced period, a table-spoonful of Scotch Orange Marmalade is a good and an agreeable addition to this pudding.

ARROW-ROOT BLANCHE-MANGE.

Make the Mucilage in the usual manner, using three times the quantity of the Arrow-root powder; then add Milk in a moderate proportion; and, having boiled down the mixture to a sufficient degree of thickness, pour it into a shape to cool and set; after which it may be turned out.

In convalescence, this *Blanche-mange* may be eaten with Currant-jelly, or with Wine, or Lemon-juice and Sugar. It is sometimes eaten with Cream; but such an addition is improper in convalescence.

MILK OR BEEF-TEA ARROW-ROOT MUCILAGE.

This Mucilage is made exactly in the same manner as the simple Arrow-root mucilage, except that Beef-tea, or Milk, is used in the boiling state instead of water; and the Mucilage is boiled for twenty minutes instead of five minutes.

Either of these preparations forms an excellent

diet in the early stage of convalescence, and for delicate children.

FLUMMERY, OR SOWANS.

Take a quart or any quantity of Grits, or of Oat-meal; rub the Grits or the meal for a considerable time, with two quarts of hot Water, and leave the mixture for several days at rest, until it becomes sour; then add another quart of hot Water, and strain through a hair sieve. Leave the strained fluid at rest until it deposits a white sediment, which is the starch of the Oats; lastly, pour off the supernatant water, and wash the sediment with cold water. The washed sediment may be either boiled with fresh water, stirring the whole time it is boiling, until it forms a Mucilage or Jelly; or it may be dried, and, afterwards, prepared in the same manner as Arrow-root mucilage*.

Flummery is light, moderately nutritious, and very digestible; it is, consequently, well adapted for early convalescence. It may be eaten with milk or wine, or lemon-juice and sugar.

OAT-MEAL PORRIDGE.

Sprinkle into a pint of Water, kept boiling, small quantities of Oatmeal, at short intervals, stirring assiduously, until a moderately consistent mixture is formed; and continue to boil, afterwards, for half an hour.

* Flummery should not be made in a metallic vessel.

Oatmeal Porridge, eaten with milk, is a moderately nutritive diet, well adapted for early convalescence, when there is no dyspeptic tendency. When the stomach is deranged, it is apt to prove acescent.

RICE AND APPLES, OR SNOW-BALLS.

Instead of preparing this dish in the usual manner—namely, cutting the Apples, freed from the rind and the internal seed-cells, into quarters longitudinally, then surrounding them with Rice, and boiling the whole in cloths—it is preferable to boil the Rice in hot water rapidly, and, after straining off the water through a Cullender, to expose it for ten or fifteen minutes before the fire, and, having stewed the apples separate from the Rice, to mix them together with a very moderate quantity of Sugar.

The Rice thus prepared is more digestible, and assuredly much more palatable, then when it is run together into a paste. Too much sugar is apt to disagree with the stomachs of convalescents, and induce an attack of Dyspepsia. The butter which is often added to this dish is improper in convalescence. With these precautions, Rice and stewed Apples form a dish well adapted for Invalids recovering from acute disease.

BOILED BREAD PUDDING.

Grate half a pound of stale Bread, pour over it a pint of hot Milk, and leave the mixture to

soak for an hour in a covered basin; then beat it up with the contents of two Eggs. Put the whole into a covered basin, just large enough to hold it, which must be tied in a cloth, and placed in boiling water for half an hour. It may be eaten with salt or with sugar; and, if wine be allowed, it may be flavoured with a glass of Sherry..

SIMPLE RICE PUDDING.

Wash two table-spoonfuls of good Carolina Rice, and simmer them in a pint and a half of Milk, until the Rice is soft; then add the contents of two Eggs, beaten up with half an ounce of sugar. Bake it for three quarters of an hour in a slow oven.

In an advanced state of convalescence, two glasses of Sherry to the pudding, before it is baked, is an agreeable addition.

MACARONI OR VERMICELLI PUDDING.

Take two ounces of Macaroni or of Vermicelli, a pint of Milk, and two fluid ounces (four table-spoonfuls) of Cinnamon-water; simmer until the Macaroni or Vermicelli is tender. Next, beat up three yolks of Eggs and the white of one Egg, an ounce of Sugar, one drop of the Oil of Bitter Almonds, and a glass of Raisin wine, in half a pint of Milk; and add the mixture to the Macaroni or Vermicelli. Bake in a slow oven.

BATTER PUDDING.

Take a table-spoonful of Wheaten-flour, a pint

of Milk the contents of two Eggs, and half an ounce of Sugar. Beat the eggs with the sugar, and mix them with the milk and flour. This pudding should be boiled, in a basin tied in a cloth, in boiling water.

TAPIOCA PUDDING.

Beat the yolks of two Eggs and half an ounce of Sugar together, and stir the mixture into a pint of Tapioca Mucilage made with milk. Bake in a slow oven.

Sago, Arrow-root, or Millet-seed Mucilage may be converted into light puddings in the same manner.

In advanced convalescence, it may be eaten with wine.

MASHED CARROTS AND TURNIPS.

Boil the Turnips and the Carrots, peeled, separately, in three successive waters; then press strongly the water out of them, through a clean, coarse cloth. Mash them together with enough of new Milk to form them into a pulp, and season with salt. Place them before the fire until the surface seems dry.

This is an admirable dish for convalescents who are restricted to farinaceous and vegetable diet; and it is one which Invalids get fond of. The author once ate of this dish for dinner daily, in convalescence from a severe disease, for several months; and he now prefers it to every other kind of vegetable food.

PLAIN BOILED VEGETABLES.

Almost every kind of vegetable may be eaten by the convalescent, if it is well boiled. All the Cabbage tribe, Turnips, Carrots, and Onions, should be boiled in two waters. If salt be added, and the boiling be brisk, in an uncovered vessel, green vegetables do not lose their colour; and, whilst they are well boiled, they remain pleasant to the eye.

b. ANIMAL PREPARATIONS.

RICE OR VERMICELLI, OR MACARONI SOUP.

Make a quart of Beef-tea, in the manner already described, and boil it down one third; then add to it an ounce of Vermicelli, or two ounces of Macaroni, which have been previously well boiled in water, and boil down the whole to one pint. The Soup may be salted to the taste, and five grains of Cayenne Pepper added to it, provided the condition of the invalid does not forbid the addition of so moderate a stimulant.

When Rice is used instead of Vermicelli or Macaroni, it should be put into boiling water, and boiled rapidly in a close vessel; then thrown upon a Cullender, and slightly dried before the fire. It should not be boiled with the Soup, but added after its concentration, in quantity agreeable to the taste of the invalid.

It is an excellent Soup for convalescents.

CHICKEN-BROTH.

When Chicken-tea, made as directed at page 413, is boiled down one half, with the addition of a little Parsley or Celery, and the yolk of an egg previously beat up in *two ounces* of *soft* water, it forms a soup much relished by the convalescent. It may be rendered still more palateable by the addition of some properly boiled Rice, or Vermicelli, or Macaroni, and *three or four grains* of Cayenne Pepper.

CHICKEN PANADA.

Take the white meat of the breast and the wings of a chicken which has been either boiled or roasted; free it from the skin and cut it into small morsels: pound these in a mortar with an equal quantity of stale bread, and a sufficiency of salt; adding, by little and little, either the water in which the Chicken was boiled, or some Beef-tea, until the whole forms a fluid paste: lastly, put it into a pan, and boil for ten minutes, stirring all the time.

A similar Panada may be made with a slice from the under side of a cold Sirloin of roasted Beef, or from a Leg of cold roasted Mutton. Either should be freed from fat and skin.

This Panada is a nutritive article of diet for convalescents and delicate children.

RICE AND GRAVY.

Take the Gravy from a Leg of Roasted Mutton,

or from a Sirloin of Beef; leave it at rest until the fat forms a cake on the surface; remove this; and stir into a tea-cupful of it as much well-boiled Rice as will suffice for a meal, in early convalescence. This is also a wholesome diet for delicate children.

GLOUCESTER JELLY.

Take of Rice, Pearl Barley, Sago, and Gelatine, each an ounce; simmer the whole in three pints of water to two pints, and strain it. When cold, it forms a strong Jelly, which may be dissolved in warm milk or in Beef-tea, or melted in hot water, and flavoured with wine and sugar.

SAGO MILK.

Soak an ounce of Sago in a pint of cold water for an hour, pour off this water, and add a pint and a half of good milk, and boil slowly until the Sago is well incorporated with the milk.

MUTTON BROTH, WITH VEGETABLES.

Take a pound of Mutton-chops, freed from the fat, put them into a pan, and boil them slowly for two hours. Take three moderate sized Carrots and the same number of Turnips, peel and cut them into dices; boil them for half an hour in a quart of water; then throw them upon a cullender to drain off the water; and, having boiled two Onions, sliced, in a pint of water, and also poured off the water, add the Turnips, the Carrots, and the Onions to the mutton liquor, after removing

the Mutton Chops, seasoning with salt and a little Celery-seed. Simmer slowly for four hours, then put in the Chops again, and continue the simmering for another hour. The Chops may be dished up with the broth.

This is a palateable, very nutritive dish for Convalescents; and, owing to the long and slow boiling, the Mutton is rendered soluble and of easy digestion.

TRIPE.

Few things are more readily digested than Tripe, when it is properly cooked. After partially boiling, in the usual manner, and also some Onions in two waters, both should be slowly boiled together, until the Tripe is very soft and tender. A sufficient quantity of Salt, and a pinch or a few grains of Cayenne Pepper, may be added.

SWEETBREADS.

These, when plainly cooked, are well adapted for the Convalescent. They should be slowly boiled, and very moderately seasoned with Salt and Cayenne Pepper.

FOWL, WITH RICE.

Free a young Fowl from the skin, and the fat between the muscles on the surface of the body, and boil it very slowly in good Beef-tea, till it is very tender; season it with salt only; and, having

boiled some Rice as if for Currie, add it to the liquor before the Fowl is dished.

c. PREPARATIONS OF FISH.

WATER-SOUCHY.

Take two of the small Thames Flounders, boil them in a quart of water to one third, long enough to reduce the fish almost to a pulp. Strain the liquor through a sieve, and, having cut the fins off four other small Flounders, put them into the above-mentioned liquor, with a sufficient quantity of salt, a few grains of Cayenne Pepper, and a small quantity of chopped Parsley; and boil just long enough to render the fish proper to be eaten. The Fish and the sauce should be eaten together.

If Flounders are not in season, Soles, or Whitings, or small Haddocks may be prepared in the same manner.

I know few dishes which are so much relished as this is by Convalescents from Fever. I have heard invalids ask for it daily for ten or more days. It is sufficiently nutritive, and very easily digested.

In advanced convalescence, the yolk of one or two Eggs may be beaten up with a little soft water, and added to the strained liquor before the Fish is put into it.

d. PREPARATION OF BEVERAGES.

BARLEY-WINE.

Take a quart of Barley-water, and boil it down one third; then add to it, whilst it is hot, a pint of Sherry-wine, a drachm of Tincture of Cinnamon, and an ounce of refined sugar.

A wine-glassful, two or three times a day, is a good cordial in convalescence attended with much debility.

DOMESTIC MEDICINES.

Under this title, I have put down those Medicines which may be kept in a family, and which may be administered without risk at the discretion of the Invalid or his friends. They are arranged Alphabetically for the facility of reference.

1. *Acetate of Lead, Sugar of Lead.* When pure, it should be in white, semi-transparent, glassy crystals, dissolving readily in rain-water, or in distilled water; but forming a milky solution with hard water, which is therefore unfit to be used with it.

Sugar of Lead should never be administered internally without the authority of a medical practitioner; but, as an external application, it may be safely used in inflammatory affections of the surface of the body. A lotion, made with twelve grains of it, two drachms of *Distilled Vinegar*, and eight ounces of filtered *Rain-water* is an ex-

cellent eye-water in inflammation of the eyes; and, with double the quantity of the Acetate and of Distilled Vinegar, it is a useful lotion for burns and scalds; or a gargle in ordinary sore throat.

a. Goulard's Extract—Solution of Diacetate of Lead has the same medicinal properties as Sugar of Lead; but it is a more powerful sedative. It has so great an attraction for Carbonic Acid, that a solution of it in distilled water becomes milky, after being exposed to the air for a few minutes.

A lotion made with a fluid drachm (a tea-spoonful) of it, a fluid drachm of *Spirit of Wine*, and twelve ounces of *Distilled* or *filtered Rain-water*, may be used in the same manner and for the same purposes as the solution of Sugar of Lead; but it should not be applied to a raw or an ulcerated surface. It should be kept in a stoppered bottle.

2. *Antimonial Wine.* In doses of from fifteen to twenty or thirty minims, in a table-spoonful of *Water* or *Camphor Mixture*, repeated every two or three hours, Antimonial Wine is useful, after bathing the feet in hot water, to excite perspiration and allay fever in slight Colds. The perspiration should be maintained by tepid, but not acidulated, mild fluids. A tea-spoonful given every five minutes, until vomiting occurs, is a safe means of emptying the stomach, in an overloaded or deranged condition of that organ, in infants. If it

does not cause vomiting after the administration of the third or fourth tea-spoonful, its employment should be discontinued. It should be kept in a stoppered bottle.

3. *Aromatic Spirit of Ammonia.* This is a more grateful stimulant in fainting, languor, flatulent colic, and in Hysterics, than the Spirit of Hartshorn. It may be administered in doses of from thirty to sixty minims, in a glassful of water, and repeated at short intervals until relief is obtained. It should be kept in a stoppered phial.

4. *Camphor.* A piece of Camphor, the size of a hazle-nut, put into a wine bottle of *Soft* or filtered *Rain-water*, and frequently shaken, communicates its flavour to the water, in which it is partially dissolved. A piece, the size of a walnut, dissolved by gentle heat in Olive or in Almond Oil, forms a good embrocation in pains of the joints arising from *Chronic* Rheumatism.

5. *Castor Oil* is a mild, efficient purgative, if the simple evacuation only of the bowels is required. When good, the Oil should be inodorous, and not acrid to the taste.

Castor oil often excites nausea, to prevent which various means of administering it have been proposed. It may be mixed in warm Milk, or rubbed up with Gum Arabic and Cinnamon water, or floated upon half a glassful of Cold-water, and a tea-spoonful of Brandy floated on the Oil, and the

whole swallowed. In measuring Castor Oil, the spoon, or whatever instrument is used, should be previously dipped in water to prevent the oil from adhering to it. The dose is from half an ounce to one ounce and a half.

If the use of Oil be repeated daily, and the dose diminished until a few drops only are taken, it obviates habitual constipation of the bowels.

6. *Conserve of Roses.* A tea-spoonful, rubbed in a basin with a little hot milk, and then half a pint of new milk poured over it, stirring the whole well together, is an excellent restorative in cases of protracted convalescence, or in great delicacy of habit. It should be taken daily, about half an hour before getting out of bed in the morning.

7. *Dill Water.* A good vehicle for administering Rhubarb and Magnesia to children, during teething; or when much flatus is present in the bowels. Half an ounce, a table-spoonful, may be given to a child a year old.

8. *Dover's Powder.* A useful means for exciting perspiration in slight colds, after clearing the bowels and putting the feet in hot water. The dose for an adult is from five to ten grains: for a boy or girl between ten and fifteen, three to six grains. It is an improper sudorific for young children, unless in peculiar cases, when it is ordered by a medical practitioner. Acidulous, tepid drinks are not contraindicated for keeping up the

perspiration, as when Antimonials are administered.

9. *Epsom Salts.* Although a common and excellent purgative, yet the mode of administering Epsom Salts is not understood. These salts operate chiefly upon the first gut, the duodenum, where, stimulating the orifice of the common bile duct, they cause a great flow of bile into the bowels, which operates essentially in aiding the purgative influence of the salts. On this account, in prescribing Epsom salts, they should be dissolved in that quantity of water only which is necessary for their solution, and thus swallowed. An hour afterwards, a large basin of warm tea, or any warm diluent, should be drunk, which will aid the salts in effectually clearing out the bowels.

These salts may be used in the commencement of any acute or inflammatory disease, and in young plethoric people, whenever the bowels require to be moved. The dose for an adult is half-an-ounce.

10. *Gum Arabic.* The simple solution of Gum Arabic in Water or in Milk is an excellent demulcent in acrid conditions of the bowels. The powder, mixed with a little water, forms a better vehicle for administering Calomel than jellies, or honey, or sugar.

11. *James's Powder.* This well-known, popular sudorific should not be taken at all times, without advice, even when fever is present.

If cold has been taken, three or four grains of it may be administered after bathing the feet in warm water; and its sudorific effects kept up by mild, tepid diluents; but not acidulated, as acids add greatly to the activity of the antimonial, and cause vomiting. The bowels should be opened on the following morning.

12. *Ipecacuanha Powder.* Ipecacuanha should only be domestically employed as an emetic. The dose of the powder for this purpose varies according to age and circumstances: for an adult, it is a scruple or half a drachm; for a person under twenty, fifteen grains to a scruple; and for a boy between six and eight years, ten grains. For children, it is preferable to use it in the form of an Infusion made by macerating two drachms of the powder in six fluid ounces of water, for an hour, and filtering. Two tea-spoonfuls, or two fluid drachms of this Infusion, may be given to a child, and repeated every ten or fifteen minutes until vomiting is produced.

13. *Lime-water* should be inodorous, and have a styptic, sweetish, slightly acrid taste: it should also be limpid and colourless. It must be kept free from any exposure to the air. It is useful when taken in doses of a wine-glassful mixed with Milk, in acidity of the stomach; and in larger doses in worms. Externally applied, in combination with oil, it forms a useful liniment for scalds.

14. *Magnesia* is a very ready and certain means of counteracting acidity of the stomach, particularly in children: it forms a purgative salt with the acid in the stomach, and thus carries it out of the system. It is also useful, when daily administered, in counteracting a tendency to calculus deposites in the kidneys; but, in this case, a purgative should be occasionally interposed to prevent the formation of concretions, which are apt to form in the bowels, when Magnesia has long been administered, and does not meet with acid in the stomach.

The dose of Magnesia for an adult is from a scruple to thirty grains; for a boy under twelve, from eight to twelve grains: the best vehicle for administering it is milk.

Good Magnesia should be soft, light, inodorous, and readily miscible in water. Henry's is the best.

15. *Nitre* is useful as a refrigerant in fever, and as a diuretic. A small portion of it kept in the mouth, and allowed to dissolve slowly, often checks the progress of commencing inflammatory sore throat. Eight or ten grains of it, dissolved in half a fluid ounce of Spirit of Mindererus, and a fluid ounce of Camphor mixture, form an excellent alterative refrigerant in incipient Fever.

16. *Potassio-Tartrate of Iron.* In a general sense, this is one of the best preparations of Iron.

It is milder in its effects, has less taste, and is more soluble than any of them, and consequently it is less objected to by children.

After the bowels have been cleared by Calomel and Scammony, this preparation of Iron is of the utmost use in worm cases. The dose for a young boy or a girl is from six to twelve grains.

a. Iodide of Iron is also a useful preparation of the metal in similar cases; and for young women of delicate habits, who are irregular as to the monthly change. It should be bought in solution, and a spiral of iron wire kept in the bottle. The dose is a tea-spoonful, which should contain three grains of the Iodide*.

17. *Rhubarb.* The best Rhubarb is the Russian: it should present, when broken, a rough fracture, mottled with bright red and white; should feel gritty between the teeth when chewed; and taste bitter and astringent, but not mucilaginous. It should be kept in the lump, and grated when it is to be used.

Rhubarb acts either as a purgative or an astringent, according to the dose. In doses of from twelve to twenty grains, combined with the same quantity of Magnesia, and half the quantity of

* Mr. Squire, Chemist, of Oxford Street, prepared it originally for the author, who introduced it into use; and he still prepares it better than any other person.

Ginger, it forms an excellent domestic purgative in a dyspeptic condition of the stomach. In doses of five or six grains, combined with any aromatic powder, it operates as an astringent in diarrhœa from weak bowels. The Infusion is a useful addition to chalk mixture in the purging of teething children. It is made with a quarter of an ounce of the grated Rhubarb and six fluid ounces of boiling water. A dessert-spoonful is a dose for a child of a year old.

18. *Senna.* The East India, although it is not much employed, is the best. The Infusion may be made with two drachms (a quarter of an ounce) of the leaflets, half an ounce of Camphor mixture, and three ounces of tepid water. The whole of the active matter of the Senna is taken up by the tepid water, whilst the Camphor mixture augments its activity; and, prepared in this manner, the griping property of the Decoction is evaded. One half of this quantity, with a tea-spoonful of Epsom Salts, is a good purgative for a boy under ten years of age.

19. *Spirit of Mindererus.* This is a solution of Ammonia in Distilled Vinegar. It is an excellent refrigerant sudorific, in slight febrile affections, when it is administered in doses of half an ounce, combined with ten or fifteen grains of Nitre and an ounce of Camphor mixture, repeated every third or fourth hour.

20. *Sulphur.* Sulphur, in combination with Magnesia, in doses of from twelve to fifteen grains of each, taken at bed-time daily, affords great relief in Piles.

When Sulphur is taken alone for some time, it excites fever; on which account, its use should be occasionally intermitted, and a saline purgative administered.

21. *Tincture of Aloës,* although a very bitter medicine, yet is one of those to which the palate sooner becomes reconciled than to many other medicines which are less nauseous. It is a useful, warm purgative in a weakened state of the digestive organs. It may be taken, in doses of half an ounce in a glassful of water, in the morning, or half an hour before dinner.

22. *Tincture of Opium, Laudanum.* Although no family can long be without Laudanum in the house, yet it is one of those medicines which require not only to be carefully kept under lock and key; but, even when it is likely to prove useful, it ought to be administered with discretion and judgment. Every pain which is suffered is not of a description to be relieved by Laudanum, without detriment to the general system: thence, those pains only, the nature of which are generally well understood, should be *domestically* treated with Laudanum. Toothach, old chronic pains of Rheumatism, sudden Cramps of the stomach, may

be safely allayed with a full dose, namely, twenty minims of Laudanum for an adult. In those subject to gall-stones, the sickness and pain may be relieved in the same manner by a dose of thirty minims, until medical assistance can be procured. The influence of Laudanum increases in the inverse ratio of the age of the individual; and on this account, it ought never to be administered to children, or to infants, without the authority of a medical attendant.

Laudanum, as a domestic medicine, is both safer and often more useful when it is applied to the surface than when it is internally administered. It may be rubbed upon the abdomen in colic; upon the spine in cough, and on the arms to subdue habitual wakefulness. In burns, and in a kind of spreading ulcer which often attacks the fingers in a deranged condition of the habit, a piece of Lint, soaked in Laudanum, and kept applied to the pained parts, and repeatedly moistened with the Laudanum, allays the pain, and affords great comfort to the sufferer. But, beyond these and similar maladies, Laudanum should never be administered without medical advice.

I cannot avoid this opportunity of making a few remarks on the evils arising from the habitual use of Opium; a vice which is daily increasing in every rank of life.

Opium, in moderate doses, and even in large

doses when taken by those accustomed to its use, elevates the spirits in the same manner as wine or brandy; thence it is substituted for these stimulants by many who would be ashamed to resort to the excessive use of either of them. Besides, as Dr. Reid has correctly remarked, "it does not in general, as wine is apt to do, raise a tumult of the feelings, or involve the intellect in clouds." "Instead of lowering man to a level with the beasts, it often invests him, for a time, with the consciousness, and at least fancied attributes, of a superior being; but he is soon stripped of his shadowy and evanescent prerogative, and is made to suffer all the horrors and the humiliation of a fallen angel*." Many fashionable women, also, attempt to light up their spirits, previous to the reception of a party, by a dose of Laudanum; "but the mental lustre thus kindled goes out sooner than that of the lamps, and the mistress of the entertainment finds herself deserted by her spirits long before her company is dispersed†." Opium, habitually taken, destroys the digestive powers of the stomach, impairs the vigour of the body, and ultimately paralyses the energies of the mind. It causes emaciation, gives a sottish aspect to the countenance, the memory fails, imbecility and old age prematurely creep

* Reid's Essays on Insanity, &c. p. 105.

† Ibid, p. 39.

upon its victims, and they sink into the grave, equally objects of contempt and of pity.

Few persons who have indulged in the use of Opium can readily relinquish the custom; and the sudden disuse of a substance, which acts as a charm in affording a momentary happiness, cannot be expected to be quickly renounced: but the Opium-eater may be weaned from his seductive poison by a gradual process.

I was once consulted by a lady who took a quart of Laudanum daily. She at length, however, experienced its bad effects so obviously, both upon her health and her purse, that she resolved to overcome the habit, which had proceeded to such an extent, that she could not rise from her bed in the morning until she had swallowed a wine-glassful of Laudanum. I recommended her to purchase two gallons of the poison, and to continue her usual potations; but, for every glassful of Laudanum which she poured from the stone bottle, to pour into it a glassful of water, so that by degrees she would at length have a bottle of simple water. She did so; and she was gradually losing her desire for the seductive draught; but, whilst I was anticipating a certain cure, she unfortunately received the intelligence that her son was killed at the siege of ———. She returned to her poison in its full strength, and I lost sight of her.

When Opium is employed for a long time,

without any considerable intervals, as a remedy in diseases, its bad effects upon the body and the mind will gradually display themselves; whilst its soothing and alleviating influence becomes every day less and less obvious.

23. *Vinegar* (distilled) is useful as a topical application in burns, and, diluted, in other cases of inflammation.

24. *Vinegar of Cantharides* is useful as a ready, almost instantaneous, mode of making a Blister. It only requires a piece of Blotting-paper, or a piece of Lint, to be soaked in the Vinegar and laid upon the part to be blistered. This method of making a Blister is extremely serviceable in cases of sudden cramp of the stomach; and in toothach. The application of the Vinegar is to be made to the stomach in the former instance, and behind the ears in the latter. In all cases of deep-seated internal pains it may be employed.

In the above list of Medicines, Calomel and many other medicines, usually found in Medicine Chests, have been purposely omitted, from a conviction that nothing is so injurious as affording the means of quackery to nurses and to ignorant mothers. Few medicines are so frequently and so injudiciously employed as Calomel; and numer-

ous are the evils consequent upon the practice of administering it in the nursery. The only use of a Medicine Chest is to have the means of affording relief in trifling ailments, and of acting promptly in some sudden attacks, the symptoms of which are so obvious that they cannot be mistaken; and in which every moment is of consequence. In such instances, the most serious evils might result before medical aid can be obtained, were nothing done.

CHAPTER IX.

MENTAL INFLUENCES UPON THE BODY IN DISEASE AND IN CONVALESCENCE:—RELIGIOUS CONSOLATION IN DISEASE—THE NECESSITY OF DISCRETION AND JUDGMENT IN ITS APPLICATION.

HAVING endeavoured to present to the reader the method of managing the body labouring under disease, it now remains only to inquire briefly into the management of the mind under similar circumstances. But, in the first place, let us examine how far the body is under the influence of mental agency.

The influence of the passions of the mind upon the body is a matter of daily observation. This influence is not confined to any particular organs; it acts upon all the organs of the body, those which are and those which are not under the control of the will. The vascular and the nervous systems are especially under its power. It may be applied either for evil or for good; consequently, the examination of its effects is an object of importance in an Inquiry such as forms the subject of this volume.

The heart is an involuntary organ; its function of giving that impulse to the blood which is requisite for its general diffusion over the habit is, fortunately, not under the control of the will; its

action commences long before birth, and it continues unremittingly whilst life remains. But, whilst this fact cannot be denied, it is undoubted that the action of the heart is influenced by mental emotions. Shame mantles the cheek and bosom with blood, causing the momentary redness, which is termed blushing. Fear blanches the face, and renders it bloodless. Anger swells the features, fills the blood-vessels almost to bursting, and suffuses the eyes. Even the direction of the attention to the action of the heart will derange, or quicken, or diminish it; and this altogether independent of any mental emotion, except the exercise of attention to its beats. This influence of mind upon the heart is greatly augmented when the organ is labouring under any irregularity of its function, or is suffering under any organic change in its structure.

But even real organic changes may be created in organs by a morbid intensity of consciousness directed to them. Thus, palpitation, induced and maintained by this cause, has terminated in that organic disease of the heart which is termed *Hypertrophy*. In this case, as in other instances, where physical alterations in parts occur, the direction of the mind to the seat of disease causes a determination of blood to the part, as well as an increase of nervous irritation in it, and, both operating, produce the changes referred to.

But, if the concentration of the mind be thus capable of not only continuing diseased action, but of causing it, we must also admit that the attention may be so abstracted from bodily feelings, by external objects, as to overcome severe sensations of pain, even when the cause of them remains in full force. It is upon this principle that much of the beneficial influence derived from the mental management of the sick depends.

Under some circumstances, this direction of the attention, instead of increasing, diminishes the exercise of the natural function of parts which are even under the influence of volition—a fact which is well illustrated in the efforts to swallow minute bodies, such as a crumb of bread or a pill. The greater the effort to accomplish it, by fixing the attention strongly upon the means, the greater is the difficulty; whilst no effort is required to swallow a moderate-sized piece of bread, owing to its demanding no exertion of the attention.

Imagination operates powerfully on the action of the heart. I once witnessed the metallic tractors cause the most violent palpitations, oppression of the chest, and embarrassed breathing. Like the Mesmerism of the present day, they wrought wonders, gave muscular energy to the paralysed, and ease to the pained; but, unfortunately, they lost their power by the exposure of the deceit. Imagination, when properly directed,

may be rendered useful in diseases, independent of quackery.

Many other proofs of this influence of mind on the body, even independent of the passions, might be advanced; but, as it is not intended to offer any explanation of the phenomena, these are sufficient. It is enough to know that the nerves are the organs excited by every act of emotion, or of attention; and, consequently, that every change in sensation, however effected, is produced through their agency. It is not necessary, here, to enquire under what condition of change in the nervous system such effects are produced: the examples which have been advanced are intended merely to direct the mind of the reader to the fact, and to impress the practical importance of being aware of it to those attendant upon the sick and the convalescent.

Few facts have been better established, also, than that the mind possesses the faculty of withdrawing itself almost completely, for a time, from objects of sense, and of thus preventing the sensations, which usually result from physical causes impressing the organs of sense, from being felt. Thus, a person suffering under any bodily pain loses the consciousness of it, if he possess the power of abstracting his attention from it by some new or other strongly interesting train of thought. Indeed, it has been, with some truth, supposed,

that the sufferings of martyrs at the stake in the cause of Religion, or those of persons put to the torture during political convulsions, have been much less than might be suspected, from the attention of the sufferers being fully occupied with the importance of the cause in which they were the victims, and from their minds dwelling upon the glory or the triumph to that cause, as connected with their fate. On this principle, therefore, it is of infinite importance to endeavour to direct the attention of an invalid from the seat of his bodily uneasiness: it not only allays his sufferings, but it also permits the energies of the constitution to aid medicines in combating the disease, and restoring the health of the part. But, as few persons have in themselves the power of mental abstraction to an extent adequate to the relief of great bodily pain, it should be the first object of the attendants of the sick to endeavour to produce the same effect, independent of any voluntary effort on the part of the invalid. By directing the mind into a new channel, the bodily energies have been roused to a most extraordinary degree, when almost worn out by disease; but, when the effort excited is too great, it may be followed by fatal effects. Muley Moluc was lying on a bed of sickness, and not expected to live; but, roused by an important incident in a battle between his troops and the Portuguese, he started from his couch, led on his soldiers

to victory, and immediately afterwards sunk exhausted, and expired.

Having offered these brief preliminary remarks respecting the influence of mind upon body, I shall now proceed to the details connected with their practical application in the sick-room; and, for the sake of perspicuity, I shall arrange them under the following heads:

1. The fact of the influence of mind over body in disease, illustrated by reference to some particular diseases, and the consequent importance of diverting, as much as possible, the attention of the Invalid from his personal sufferings.

2. The importance of inspiring invalids with confidence in the means, medicinal and otherwise, adopted in the treatment of their diseases; and of augmenting the hope of their restoration to health.

3. The importance of religious consolation in alleviating the sufferings of the diseased; but the necessity of exercising the utmost discretion in the attempt to impart it.

4. It is scarcely necessary to say, that the influence of the mind upon the body, labouring under disease, is most obvious in those affections which are referred to the nervous system. I have already given a most striking and melancholy instance of Grief on the general system (page 36), which proved fatal to a person of keen sensibility, pre-

viously in good health. It equally affects the vascular system; for, to use the words of Melancthon, "Sorrow strikes the heart as with a blow, causing it to flutter, and to languish, with a deep feeling of pain."

The influence of mind over the general mobility of the body is strikingly exemplified in *convulsive* diseases; and the importance of endeavouring to prevent the patients from yielding to their feelings is well known to the physician. Friends, in such cases, must not display too much sympathy with the patients; but they should remonstrate with them, mildly, on the necessity of opposing the approach of the paroxysm; and the probability it may be warded off, if they resolutely determine to resist it.

This is peculiarly essential in Hysteria, a disease which most generally occurs in those who have been imperfectly or improperly educated, whose actions are governed by their feelings, and who have never been taught the value of self-control. In such cases, the moral is not less important than the medical management. The mental irritation which accompanies and keeps up the disease is often associated with local circumstances, which ought to be discovered, in order that the Invalid may be removed from them, if her moral courage cannot be screwed up to resist their influence. Although sympathy as it were nourishes

the malady, yet it must also be recollected that harrassing and unpleasant occupations should be avoided, and that the imagination of the patient should be weaned from creating fictitious suffering by cheerful and amusing conversation.

In Hysteria, when the disease is gradually wearing milder and milder, and when a glimpse of returning health is perceptible, a harsh expression may renew all the untoward symptoms, and overthrow the advantages of many weeks' judicious treatment. Thence the paramount necessity of kindness and of delicacy of demeanour towards the unfortunate beings who are labouring under that unmanageable disease. In a few words, in no class of disease is a delicate, winning manner, accompanied with firmness, more requisite than in affection of the general nervous system. The salutary influence of the treatment which they require depends as much on the mental as on the physical remedies.

It is not the purpose of this volume to interfere with medical management; but I may be permitted to say, that, in many nervous affections, I have seen the greatest benefit ensue, in a short time, from the custom of sleeping for a few hours during the day. The best period for this *siesta* is, after moderate exercise, before dinner. This recommendation, however, does not imply the propriety of much of bed: on the contrary, the

nervous patient should rise from bed the moment he awakes. To remain in bed meditating on his bodily and mental feelings nurtures the malady, and changes the couch of repose and quiet into the cradle of anguish. The most dangerous of all indulgences to the nervous is that of Imagination passing in review before him the melancholy array of the evils, real or fancied, which are preying upon him; and at no time is this more likely to occur than at the period between awaking and rising in the morning, if that be protracted.

When serenity is nurtured, it conduces to restoration; and even where recovery is impossible, kindness tends to awaken emotions well calculated to prolong life.

The influence of early rising in such cases is thus beautifully described in a work which has been too little appreciated. "It is in the calm and silent grandeur of the morning that the afflicted man is deeply impressed with the power of his Creator, and feels the sweet balm of his works, and their promises poured into a lacerated bosom.

"He feels it in the fresh breeze that wafts comfort and strength from Heaven itself on his grief-worn head; he hears it in the gentle sound of the sheep-bell, in the murmur of the brook, and in the sweet song of the innocent bird which rises aloft to proclaim the beauties of the full-

blown morn."—"Let him pass with a troubled, nay agonized, though not a guilty mind, into those matchless scenes which Nature can unfold to his view, and her own still voice, magnificently eloquent in the morning silence, shall soon clear away his doubts and soothe his sorrows*."

From what has been already said, it is evident that few parts of the living frame are so powerfully influenced by mental impressions as those connected with the function of the heart. Care, anxiety, grief, and all the depressing passions, lower the nervous energy; thence they derange the action of the heart, and often lay the foundation of structural diseases of that organ. If this be the case, when no derangement of the system is present, how much more is it likely to occur when disease has already weakened the frame, and morbidly augmented the susceptibility of the brain and the nerves. The exciting passions, when carried to a greater than ordinary height, are still more hurtful than the depressing; thence, it should be strongly impressed upon the patient, and also upon his relations and friends, that nothing is so likely to cause a sudden, fatal termination to any disease of the heart as a burst of Anger or of Passion. The numerous cases of this kind on record prove the great importance of pre-

* Fletcher's Sketches, &c. p. 211-12.

serving equanimity of mind, and a quiet and placid deportment in diseases of the heart.

In *Hæmorrhagies*, whether from the stomach, causing *vomiting of blood*, or from the lungs, in which the blood is brought up by *coughing*, moral causes operate powerfully; and, consequently, the greatest care must be taken to keep the mind of a patient, labouring under either disease, free from every cause which can affect the passions, whether of a depressing or an exciting kind. This is more especially the case in *spitting of blood*; as any cause, operating either as a sedative or a stimulant, is equally capable of augmenting the flow of blood. If the exciting passions be roused, the heart is impelled to increased action, and necessarily throws an unusual quantity of blood upon the lungs; if the depressing passions be operating, the diminished impelling power of the heart admits of stagnation taking place in the pulmonary vessels; and, in either case, the discharge of blood is renewed if it have stopped, or it is augmented if it has not been suppressed. The importance, therefore, of preserving an equable and tranquil condition of the mind in this disease requires no comment.

The necessity of amusing the convalescent, and withdrawing his attention from himself, is, under no circumstances, more necessary than in those cases in which mercurial remedies have

been employed to an extent approximating to salivation. The salivary glands are peculiarly susceptible of being affected by mental emotions. The idea of a savoury dish causes the mouth to water, as the phrase is; and, when the gums are scarcely affected by mercurials, painful sensations may be excited by the attention being directed to them. In cases in which salivation has been induced, even when it has been very moderate, a long time is requisite to remove the tenderness of the gums, in highly susceptible individuals, who have little inclination for reading, and who have no person with them capable of soothing their sufferings by the balm of amusing conversation. I have had many opportunities of seeing this exemplified. A lady is, at this time, under my care, who has not taken a particle of any mercurial medicine for upwards of six weeks past; nevertheless, she still suffers severely from the tenderness of her gums. Her sisters and mother have been out of town, and she has had no relation near her, except a deaf aunt; and, never having much cultivated her intellectual powers, she has brooded over the condition of her mouth, until the pain has sometimes arisen to an almost insupportable degree. What the nature of the physical changes, if any really take place in such cases, may be, it is extremely difficult to conjec-

ture; but it displays strikingly the necessity of weaning the attention from the feelings of the body.

The influence of the mind upon the stomach is every day witnessed. Any circumstance which will cause a fit of deep anxiety or of misery will suspend the digestive powers for a time, even in a person in the best state of health; but, when the organ is previously weakened by disease, the injury which is thus inflicted upon the gastric nerves does not disappear with the removal of the exciting cause, but continues long after the mind has regained its usual composure.

Mental Indigestion, as this malady has been correctly named, is accompanied by confusion and pain in the head, vertigo, palpitations and uneasy feelings about the heart; pains or a burning sensation between the shoulders, with oppression at the chest; a furred tongue, flatulence, torpid bowels, a feeling of languor after taking food, and flatulence. The temper becomes irritable, and the sensibility so morbidly acute, that a harsh look, or a severe expression, will augment all the sufferings of the Invalid. Like the chords of an overtuned harp, the nervous system, when affliction has once laid his hand upon it, rendered acutely susceptible, vibrates to the slightest accidental touch; and even the recollection of what

awakened its morbid sensitiveness and all its accompanying train of bodily sufferings, raises afresh the evils which for awhile were allayed.

In such a condition of the nervous system, even when the disease is on the decline, all the symptoms may return by any mental disturbance, more especially if it be akin to the original anxiety which was the exciting cause of the attack: thence the great necessity that the attendants of the invalid should refrain from such subjects is obvious. If they are likely to form the contents of letters, these should either be withheld from the invalid until a fitter opportunity of perusing them presents itself, or until their contents be examined by some relation or intimate friend; and then they should be cautiously and discreetly communicated.

Indigestion, arising from mental causes, not unfrequently merges into Hypochondriasis; and this is more likely to take place when the stomach has been physically deranged by previous disease. Although the ailments under which the invalid has been suffering have been removed, yet his consciousness that his digestive organs are still inadequate to their office retards his complete recovery, and becomes a source of mental suffering which reacts upon the stomach. Sensations of oppression and pain are experienced and referred to the stomach; the nervous system again suffers; the irritability, depending upon such a state, is

again excited, becoming almost uncontrollable; and the poor sufferer then verges into complete hypochondriasis.

Keeping these facts in view, there is nothing more important in the management of convalescence, in such invalids, than the diversion of the attention of the patient from his personal feelings, especially when the stomach has been involved in the disease from which he is recovering. For this purpose, a proper selection of books for his perusal is of primary importance. Their subjects should be of a bustling, stirring nature, but not puerile. Few books are better adapted for this purpose than the Waverley novels.

After fevers, in which the brain has been acutely affected, a temporary fit of *Melancholy* may supervene, under which the closest attention and watchfulness in the attendants are requisite to prevent suicide, which, in such a condition of the mind, has too often happened. This is more essential, as this mental affection suffers remissions, and even intermissions, which tend to deceive and throw the attendants of the invalid off their guard. It is not easy to mistake this state; the haggard, melancholy, anxious expression of the sufferer, displays, most obviously, the bitter anguish in which his soul is steeped; he sees nothing in the world but misery and suffering; Hope has departed from him; and he seeks relief where he

expects only to find it, in the quiet of the grave. In this case, the previous shock which the brain has suffered is undoubtedly the predisposing cause of the irritable condition in which it exists when this state of mental suffering is present. There are often severe shooting pains in the head, intollerance of light, and many other symptoms, as if the fever which has just ceased had returned. The perceptions of the sufferer are so much exalted, that the slightest mental causes affect him: the digestive organs soon, also, feel the derangement in the nervous system; and, as their function is disturbed, the assimilative process becomes imperfect, the body falls at length into a state of Atrophy, and the mind into Imbecility. It is scarcely unnecessary to say how closely such invalids should be watched.

When the previous disease has been fairly subdued, and the invalid can be safely removed, much benefit may be anticipated from travelling; but, when that cannot be obtained, a decided salutary effect may be gained from well-regulated society, even when the invalid is yet incapable of leaving his room. Great discretion, however, is requisite in the choice of those who are intended to cheer and to amuse him. The amusement which is supplied must not be such as to fatigue the attention; the conversation must not rest too long upon one subject, but be occasionally varied in such a

manner as to re-excite the attention, by the change of the stimulus, before the exhaustion, which must necessarily follow the continuance of the same impressions, be experienced. A hacknied gossip, a professed talker, a conceited punster, a loud laugher, are alike to be debarred from entering the room of such a convalescent: it is he or she only, who, with a well-stored mind, mild and gentle manners, and feelings which can sympathize with the condition of the patient, and who also possesses judgment to point out the limits to which the efforts to amuse may be safely carried, that is capable of undertaking this important part in the management of nervous convalescence. Under no circumstances should ridicule be employed "to laugh him, as the expression is, out of his malady, because it happens to be nervous.*"

The taste of the Convalescent must also be consulted. Indeed, in every convalescence, this should be consulted; but, at the same time, some degree of firmness is requisite for enforcing the daily habits of exercise and regimen which the case demands. Thus, in summer, he should be urged to walk or ride before breakfast; and, to induce his more ready compliance, he should always be accompanied by an agreeable companion, who will never allow his mind to reflect, nor his atten-

* Fletcher.

tion to dwell upon his past or present sufferings. On returning, however, from such exercise, the Convalescent should not breakfast until he has recovered from the feeling of fatigue; and, after this rest, means should be concerted for agreeably occupying his mind until dinner, or until the evening, when, in such cases, the spirits become more composed than at any other period of the day.

But, if attention to the condition of the mind and the state of the feelings be necessary in convalescence from nervous affections, it is equally so during the presence of diseases in which the brain or nervous system is implicated. It is, indeed, scarcely necessary to remark, that mental excitement, as it is capable of disturbing all the functions of the body in health, exasperates every symptom of fever: even ordinary mental exertion, if attempted, is hurtful; and, consequently, it should be restrained. The utmost repose of both mind and body must be enjoined, and all objects which can give rise to mental emotions withdrawn. Thus, those connected with the invalid professionally, or in occupation, should not present themselves before him; nor should any subject connected with his affairs be canvassed. This mental repose is still more requisite in cases in which the brain is specially affected; as in low, continued fevers of a typhoid character.

It is unnecessary to refer farther to peculiar diseases; I shall point out the necessity of refraining from awakening the passions, whether exciting or depressing; and also of not influencing the imagination of invalids who are prone to credulity.

The exciting passions operate upon the healthy body in the same manner as material stimulants; and, in excess, are causes of disease in susceptible individuals: the impulse which will kill one man will scarcely excite the smile of another. Under ordinary circumstances, they quicken the pulse, elevate the heat of the body, and rouse the nervous energy; thence their action is followed by collapse, and thence the danger which may result from them to invalids of susceptible feelings. A joyful event communicated suddenly to such an invalid may produce a fatal effect. Sophocles, when aged and infirm, was crowned for composing a successful tragedy, and died on the spot. Sinamus Taffurus, the celebrated Jewish pirate, having received intelligence that his son, who was captured and enslaved by Barbarossa, was ransomed; hastening to his aid with seven well-armed ships, was so overjoyed, that he was struck with apoplexy, and almost instantly expired. These are instances of Joy causing fatal diseases in the healthy: the following anecdote illustrates its influence on a habit suffering under disease. A boy of eight

years of age, the only son of his mother, was labouring under great debility and Dropsy, the sequel of Scarlet Fever. He was, however, recovering; and the physician informed the anxious mother that her son was out of danger. She incautiously communicated the intelligence to the over-sensitive boy. "Is it really true, Mamma?" said he, as he ardently threw his arms round her neck—"shall I not be put in the church-yard with Betsy, but play at marbles again with cousin William?" The warm kiss which in reply she imprinted on the lips of the little fellow was not returned; his arms loosened from her neck; and he fell back upon the pillow a corpse.

The influence of the excitement of *anger* or *impetuosity* in disease is still more hazardous than that of over-joy. No unlucky incidents nor events that can cause even a momentary irascible feeling should ever be communicated to an invalid. The passion which they awaken rapidly exhausts the irritability of the nervous system; and faintings, convulsions, and even death, have followed. A gentleman in an advanced stage of pulmonary Consumption was visited by a friend whom he had not seen for many years. The conversation turned upon past events; and an act of ingratitude was mentioned, which roused the indignation of the poor invalid. He rose from his chair; and, whilst in the act of declaiming against the ingrate,

he struck the table with his fist, sank down in his chair, and instantly expired.

I have seen an instance in which a wife, neglecting a sick husband, and giving her time and conversation to other individuals, excited the passion of jealousy, which, preying upon the weakened mind of the invalid, was followed by sleepless nights, wasting of the body, loss of every aptitude for the smallest exertion, until he fell a victim to the mental poison which corroded his frame. Nor is this wonderful when we daily witness its effects on healthy individuals. I may be excused in quoting our immortal Bard's correct detail of its influence on Othello:

> *Iago.* Look where he comes! (Othello *enters.*)
> Not poppy, nor mandragora,
> Nor all the drowsy syrups of the world,
> Shall ever medicine thee to that sweet sleep
> Which thou own'dst yesterday.

The depressing passions operate sometimes as suddenly as the exciting. A gentleman, reading a newspaper in a Coffee-house in Dublin, saw the notice of the death of his only son at the storming of Bergen-op-Zoom: he instantly fell from his chair, and expired with a moan, from the rupture of his heart. But, in general, the depressing passions, although they operate as fatally, yet operate in a different manner from the exciting, in disease.

Their influence is that of direct sedatives, slow but certain in their effects; consequently, nothing which can lead to Despondency or Despair should ever be allowed to dwell upon the minds of invalids. A person labouring under disease may say to his physician, "Sir, all your endeavours will be useless; I feel that I shall certainly die of this complaint." What is the consequence? If the mind cannot be diverted from dwelling upon such an idea, it produces, in most instances, the accomplishment of the prediction. The body wastes, the countenance becomes pale and dejected, the eye retires within its socket, and the whole powers of life gradually fail, until Death closes the scene.

Disappointment, in the anticipation of some expected good, operates nearly in the same manner, in disease, as Despondency. This is peculiarly the case when it is connected with the tender passion in young females, more keenly susceptible in disease. In health, it brings on disease, and wears down the energies of both mind and body; especially when the passion has been fostered on one side only; when the mind has long cherished the passion, and then is suddenly awakened to the illusion, to the long, lingering, undying pang of disappointed hope—the unlooked for termination of gentle, silent, and devoted love. It is not easy to say how this influence is to be averted or weakened in disease.

The bodily effects of *Fear* can only be ascribed to its powerful influence on the nervous system.

In every disease, fear increases the danger, disturbs the usual course of the malady, and often brings on new and unexpected symptoms; thence the necessity of cheering the spirits of the sick, and inspiring confidence in the hope of recovery. Impress a sick man with the idea that the disease may prove fatal, the conviction will verify the impression. The worst of all evils in sickness is a belief in fatality.

The last remarks which I have to offer respecting attention to mental influences is in reference to surgical operations. Every surgeon knows the blighting and dangerous influence of fear in such cases; and the necessity for raising and cheering the person who is about to become the subject of an operation before its performance. No indiscreet nor gossiping acquaintances should see the invalid at that time; since it is impossible often to check their gloomy forebodings and their ill-selected anecdotes, which are only calculated to awaken imaginative terrors that, sometimes, subdue the resolution of sufferers who can otherwise boast of the strongest moral courage. Those who have witnessed the pulling down of the stoutest heart, during the contemplation of an operation which has been put off for a few days, will join in the

necessity of never informing the invalid of the period when the operation is to take place until an hour at most before the event. If he is of a timid character, naturally, he must be cheered and supported, and every idea of despondency or forboding driven from his mind. When this caution has been neglected, men of vigorous constitutions have been taken from bed to undergo an operation; and, at its completion, have been laid upon it a corpse. This fact of danger attending such communications is admirably illustrated in the following melancholy anecdotes:

A girl, who was to undergo the operation of amputation, requested to see her mother. After the interview, her mind having been indiscreetly alarmed by the mother, she declared that she could not suffer the operation, and would die with the diseased limb on her body. Notwithstanding this declaration, she was at length, after an interval of some days, persuaded to submit the limb to the knife of the surgeon. "When she entered the operation-room," says Mr. Fletcher, who details the incident, "she trembled, with an expression of wild alarm, mingled with that of vacancy on her countenance, indicating the mind lost or distracted with terror; nor would she have entered the room at all, but for an angry remark of the surgeon, who intimated that she was making a fool of him a second time. This was decisive. She sat down confusedly, without being conscious

of a question addressed to her, threw a rapid glance round the room, and sighed deeply*." The operation was well done; but the girl died on the sixth day from the operation.

Fear, in this case, was undoubtedly the cause of death. It demonstrates the necessity of discretion on the part of relatives in displaying or expressing their fears to the invalid; and not less the impropriety of performing operations under such circumstances. In general diseases, also, this passion, by lowering the powers of life, so modifies the influence of medicines as often to baffle the most judicious practice. In one instance, which came under the notice of the author, a person, recovering from an acute disease, suddenly relapsed from an alarm excited in his mind, respecting his condition, which originated in the remark of a visitor, "that he was not yet free from danger." He became worse; the feeling that he must die had taken firm possession of his mind, and death soon followed this conviction.

The leg of an old, discharged seaman, which was necrosed†, was condemned to be taken off in the Gloucester General Hospital. He was in good health in other respects, and temperate; "but the day before the operation," knowing that it was to be performed, "he was in unreasonably high spirits, daring and reckless, amounting to

* Fletcher's Sketches, p. 363-4.

† Mortified at the bone.

wild bravado, and longing for the time to arrive, when he should shew the example of a British tar's indifference to bodily suffering.

" The hour came, and he kept his word. He mounted the stage—would neither be blind-folded nor held—but with folded arms, and a determined eye, surveyed the preparations, and flooded the modest and astonished nurse with a torrent of sailor's wit.

" When the knife penetrated the skin, he began and continued to sing with more steady coolness than he had hitherto shown, and without the slightest break, the naval song of ' Tom Tough,' until the completion of the operation.

" This fine fellow fell altogether as low after the most favourable operation as he had been previously high. He hardly rallied for a moment, but withered away, to sing and fight no more, on the fifth day from the amputation." This result was undoubtedly the consequence of " long-continued, over excitement, or extreme tension or straining of the mind*."

ii. The powerful, salutary influence of Hope and Confidence in disease is well known to every Medical Practitioner. He is well aware that many maladies will yield to no material remedies unless the soul concur; and daily observation displays to him Hope and fortitude of mind triumphant in

* Fletcher's Sketches, p. 360-361.

repairing the debility of the body worn down by physical ills. The more the physician can, therefore, be aided in keeping awake the hopes and confidence of his patient, the more certain is he of curing the disease. Hope, in truth, is not more essential in sustaining the moral courage of man amidst the evils and difficulties which beset his paths of life than it is in disease.

> Cease, every joy, to glimmer on my mind,
> But leave, oh! leave, the light of Hope behind!
> What though my winged hours of bliss have been,
> Like angel visits, few and far between!
> Her musing mood shall every pang appease,
> And charm when pleasures lose the power to please.

The influence of Confidence is associated with Imagination, with regard to the curative agency of which the history of Medicine is most prolific; and it is upon this principle in the mind that the occasional success of Empiricism is based. In looking for illustrations of its influence, the only difficulty is the selection of the facts; and the author might amuse his readers by the details of the success which has followed its application in every age of society, from the rudest, where it operates on the ignorance and credulity of the human savage, to that of the widest diffused knowledge. In the latter, it still holds its sway, not only over the untutored rustic or labouring mechanic, but over

* Campbell.

the accomplished gentleman, the deep-read scholar, and the philosopher. The Phylacteries of the Jews, the miracle-working relics of the Roman Catholic Church, the Royal-touch of the middle ages, were not more confided in than the advertised nostrums of the present period, by all descriptions of people. Thirteen hundred years have elapsed since Ætius described and ridiculed the nostrums of his time, and the extravagant sums paid for them. In the sixteenth century, Paracelsus cured Gout, Rheumatism, Convulsions, and similar diseases, by the magnet; a remedy which was again brought forward to work upon the imagination of invalids labouring under the same diseases, about thirty years ago, in the form of metallic tractors; and a third time, in its original form, a few years since; but its reign was short; and it has given way to the greater absurdity of animal magnetism, the invention of Mesmer, a Swiss adventurer. The wonderful influence of Confidence, in the operations of Mesmerism, displayed upon nervous individuals and hysterical women, is perhaps unequalled.

In no class of maladies is the influence of Confidence, in supposed remedies, more strikingly illustrated than in those which are characterized by periodical returns or Agues. Many Agues are even at this day cured by charms, by spider's web, the snuffings of candles, and other substances, which

can only act through the Imagination. A gentleman in Sussex, who farmed his own property, was requested to give one of his farm servants a holiday, in order that he might go to Ipswich to be cured of an Ague by a man who could charm it away. As it was harvest time, his master could ill spare him; and, to satisfy the poor man, he assured him that he himself knew the secret and could cure him. He made the man turn thrice, for three successive times, and then, mumbling a few latin words, assured him that he was cured. The man believed; and the disease never returned.

But the fanciful proposals of Empiricism are sometimes equalled by scientific fancies. In the commencement of the present century, a French chemist, having assumed the right to a discovery, made by Dr. Maton several years before, that the Infusion of Galls precipitates Infusion of Cinchona Bark, supposed that this depended on the Bark containing Gelatine, and proposed to employ *Glue* as an Antiperiodic, or a cure for Ague. In France, in Italy, and elsewhere, numerous cases of Ague were successfully treated with Glue; and a volume was published by Dr. Giuseppe Gautieri to explain the mode of its action in effecting these cures: and, to prove that it surpasses Cinchona Bark in efficacy, we are told by the learned Doctor, that the Glue diffuses an agreeable warmth over

the body, especially the surface of it, and consequently promotes perspiration: but, says he, it injures the appetite, depresses power, and procures quiet sleep. The dose of the Glue was *five drachms,* taken just before the cold fit of the Ague, and repeated in ten and twenty minutes, till the whole was swallowed. A London alderman would agree with the opinion of the sapient Physician, that Glue destroys appetite, as he has often experienced after the third plate of Turtle; aye, and even produces sleep; but how far it would serve to remove an Ague from the worthy Magistrate, without a firm faith in its power to make him whole, we shall not venture to pronounce.

Although these details are demonstrative of the prop which Confidence or Faith affords to the Impostor, yet, like the dew of Heaven, which falls equally on the just and the unjust, Confidence is not less valuable, when properly taken advantage of, to the scientific physician. It demands two distinct efforts to make it effective; one on the part of the physician, the other on the part of the friends and attendants of the invalid. With respect to the first, no medical Practitioner can expect to gain the confidence of his patient, unless he can impress him with the belief that he is not only duly qualified for the investigation and cure of diseases, but that he is deeply interested in the case; and he must prove to the patient that he

may rely with security on the measures which he adopts. He is undoubtedly the most successful physician who can most easily govern the mind of his patient.

With respect to the latter, the friends and attendants of the invalid should second, in every instance, the efforts of the physician to secure the confidence of his patient. Every one who has had opportunities of becoming acquainted with the gossiping in the sick-room must have frequently witnessed the opposite conduct in nurses and the visitors of the sick. "Dr. ——," says the nurse, "would not have given you such a medicine." "I wish," exclaims some female friend, "you had been under dear Dr. ——; he did so much good in a case exactly the same as yours. Yes! he is the physician I shall always recommend." In the weakened condition of the mind of the invalid, is it wonderful that his mind wavers? that his confidence in his doctor is weakened? and thus, by talking away the character of the physician, the disease gains ground, and the anticipations of both doctor and patient are frustrated.

The cultivation of the Confidence of the sick, essential towards effecting a restoration to health, is most requisite in those maladies which originate in, or are connected with, mental afflictions. In such diseases, the invalid, brooding secretly upon his miseries, despises the means which are at-

tempted as remedial; he treats his medical adviser with pride and distance: but, when his confidence is secured, his reserve is thrown aside, his self-importance is lowered, and he unburthens his mind to his physician, who thus is enabled to view the malady in a proper light, and consequently to prescribe with the anticipation of a beneficial result. As the real character of the patient unfolds itself, his sentiments, tastes, and even his failings, are exposed; and, if the physician possess a sound judgment, he may both morally and physically work upon these materials in a manner adequate to the removal not only of the existing malady, but completely to oppose its future approach.

If this be the point which the physician ought to aim at attaining, it is surely unnecessary to urge the propriety of every effort on the part of the friends and attendants to aid his efforts in securing that confidence upon which so much depends. To endeavour to reason a Melancholic, or a Hypochondriac out of the feelings of Despondency, or of the dread under which he labours, is a vain effort which will only bring disappointment. The corporeal disease clouds the mental faculties, and especially the power of comparison; but, obtain the confidence of the invalid, and the battle is already won; whilst arguments tend rather to rivet the opinions of the Hypochondriac than to

convince him of his error. Hippocrates, the father of rational medicine, delivers this opinion as an aphorism—"he performs the greatest number of cures in whom most trust."

In conclusion, the following may be regarded as a summary of the rules required to be observed with respect to the mental management of invalids.

1. No person should be employed as a nurse in the sick-room, who has not complete control over her temper; who is of a peevish or irritable temperament; gloomy or superstitious, yielding belief to forebodings, omens, or any such fancies. A cheerful, pleasing, obliging, patient, and contented disposition, is essential in the character of a sick-nurse.

2. All unnecessary conversation with the invalid respecting his feelings should be avoided; but, whilst he ought not to be teazed even respecting his wants, his condition should be so studied, that whatever is proper for him, whether medicines, food, or drink, should be administered at proper intervals, without enquiring whether he desires it. To do more than this is a cause of irritation, which must always be avoided.

3. No suspicions should be raised in the mind of the invalid that his disease is not progressing favourably towards a cure: thence, all whisperings, consultations, exchange of looks, denoting anxiety for his fate, as well as all expressions of commisera-

tion respecting his condition, should be carefully refrained from by every attendant in the sick-room; and caution is requisite respecting every thing that can induce fear, terror, despondency, grief, or any mental depression.

4. Nothing should be said or done to awaken the irritable feelings or the indignation of an invalid: even circumstances and events likely to excite too powerfully the pleasurable feelings should not be suddenly communicated to him.

5. No remarks nor comments should be made respecting the plan of treatment; nor any allusion whatever which can lessen the confidence of the invalid in his physician or medical attendant. Even when directions, apparently injudicious, are given, they should be fulfilled, if no deleterious consequences are likely to result from them. If confidence cannot be reposed in the medical attendant, another should be procured; but no interference with the plans of him who is attending should be permitted. If the caprice of an invalid requires the attendance of any particular physician, even when the utmost confidence can be reposed in him who is in attendance, the wish of the invalid should be indulged.

6. In convalescence, idle, gossiping visitors should be debarred from entering the sick-room. The taste and the pursuits of the invalid should be consulted in selecting his associates, before he

is well enough to leave his room, and select for himself.

7. In convalescence, every exertion of the mind, as well as every kind of bodily exercise which can cause fatigue, must be refrained from, especially when the disease has been of long continuance. It must always be recollected, that the faculties of the mind are exhausted by even moderate application, during recovery from disease, and that much mental exertion may induce permanent dyspepsia, or apoplexy, or melancholy, or fatuity. No mental task to which an invalid has a reluctance or distaste should be urged during convalescence. Finally, itmust ever be borne in recollection, that the "soul has a certain empire over the body it animates," and may be so managed as either to cause disease or to fortify health.

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iii. The inestimable value of the consolations which may be derived from Religion in disease is undoubted. The resignation which it teaches is a certain source of hope and comfort. But great as the consolations are which it imparts, the impressment of it on a mind weakened by disease requires much discretion; and such a season is often the worst adapted for its employment as a corrective to a wandering or hesitating belief.

Religion has been justly regarded as the last and firmest hope of the afflicted; but, in impart-

ing its truths to the fractured and over-susceptible mind of the invalid, gentleness, charity, and forbearance, are essential; and it is surely unnecessary to say, that those only who possess these qualities are capable of imparting efficiently the cheering spirit of Christianity. The object should be to sooth, not to distract. On the bed of sickness, the mind is humbled; the heart is softened by its humiliation; it feels its helplessness; and is almost involuntarily turned to contemplate a future state of existence; and even the infidel, in the restless wakefulness of successive nights of bodily anguish, looks upwards to a superior Being for aid, when he finds that all other is denied to him. It is the feelings of such a moment which open the mind to embrace a solid faith, and to rely on the boundless benevolence of the Deity. But the question may be asked, how is the knowledge of it to be imparted to one who perhaps doubts even the existence of such a Being?

When I talk of religious consolations in the sick-room, it is chiefly to woman I look as the bestower, the instructor, the gentle yet firm guide; calculated equally to rebuke, if necessary, the wavering sinner, trembling on the brink of a state of change in which he can see no hope, and to sooth and encourage him whose eyes are fixed upon the anticipation of a peace which passeth understanding. Who better fitted than woman to pour into

the agonized bosom the healing balm, more salutary from being communicated in the gentlest tones of sympathy? What more cheering, when the hopes of that futurity, upon the confines of which we are about to enter, are held up with the endearing smile which brightens a countenance upon which Providence has bestowed an angel's impress? It is woman only, when engaged in such a sacred duty, who is neither scared by the aspect of misery, however squalid and repulsive, nor deterred by the risk of contagion.

It is not in the sick chamber of the wretched and the poor only that the angelic smile of woman can impart consolation, infuse the spirit of resignation under sufferings, and inspire confidence in the promises of divine revelation. The same advantages may be derived from her gentle and kind manner, her enduring attentions, and her forgetfulness of self to those nursed in all the luxuries of fortune, when laid on the bed of sickness, and seeking the comforts of Religion. Let me, however, caution her whom I have thus described, however her conscience may lead her to rely on particular creeds, not to press them too forcibly upon her suffering sister or brother: to treat with charity opposing religious tenets; and, if a beam of hope of recovery gleams upon the coming hour, to point out to the invalid who is about to enjoy it, that no gratitude can be more favourably

received by the Divine Disposer of events than the strict exercise of the active as well as the passive virtues of a Christian life. Although it must be admitted, however, that no time is more apt than that in which disease aims the dart of the Destroyer, but who delays to strike, for settling, in the sceptical mind, the great truths of Religion; when the world to the sufferer is divested of its illusions, and faith illumines that to which he should direct his eyes with the brightest beams of hope; yet, no time is worse adapted for the purpose of proselytism. If, in the buoyancy of health, the majority of men neglect, if they are not really incredulous to, the truth of a retributive state; under the pressure of disease, it forces itself upon their notice; and conscience too often anticipates a condemnation. In such a condition of mind, nothing is more to be deprecated than holding up the terrors of an offended Deity, at the side of the sick-bed. It is as injurious to the mind as it is destructive to the body. The death-bed of an upright man is thus described by Jeremy Taylor: "Then the sorrows of the sickness, and the flames of the fever, and the faintness of the consumption, do but untie the soul from its chain, and let it go forth, first into liberty, and then into glory.*" The approach to the close of life of a bad man is

* Taylor's Holy Dying, 12mo. p. 581.

too painful to contemplate; all hope struck down; and the future—alas! the picture is too overpowering. Weakened by suffering, conscience whispering much neglect of duty, if not commission of crime, the mind of the wretched patient sinks into despair; his nervous system is totally unstrung, and the medicines which, were the mind calm, and the thoughts turned into a salutary channel, might prove successful in the contest with disease, become useless and unprofitable. On the other hand, in such a melancholy condition, much may be effected even by human sympathy, in soothing the troubled conscience to a welcome serenity, by laying open to the invalid the consolations which a view of the benevolence of the Deity has promised to those who sincerely repent. By such means only can the troubled mind be lulled into tranquillity. Where reproof cannot be avoided, it should be tempered by the mildest wisdom; confidence is thus ensured; and, if the comforter display earnest piety, and demonstrate its influence in his own deportment, there is more to be hoped for than can ever be effected by denunciations and threatenings.

The task of conversion, as it is styled, cannot, however, be undertaken at a worse moment than when the object of it is stretched upon a sick-bed. At all times, there is no folly greater than that of attempting religious coercion, or endeavouring to

produce a uniformity of belief. In the sick-room, the attempt to make converts to a particular faith or sect, by frightful denunciations on unbelief, is cruel, and the worst of tyranny. "Let it be enough that we secure our interest of Heaven, though we do not go about to appropriate the mansions to our sect; for every good man hopes to be saved as he is a Christian, and not as he is a Lutheran, or of any other division*."

> Oh! shall God listen to the meanest prayer
> That humbly seeks his high supernal throne,
> And man, presumptuous Pharisee, declare
> His brother's voice less welcome than his own? †

Instead of such a mistaken zeal, the essence of Religion consists in attracting the wanderer to the love and the practice of truth, and gratitude to the Deity, whatever may be the form in which it is displayed. Instead of denouncing wrath and everlasting condemnation, the prospect of future and lasting felicity should be opened; and the pure and forgiving spirit of our holy faith, that point of it in which every sect professing Christianity, however exclusive its doctrines, agrees, should, with that most winning eloquence, which a conviction of truth always supplies, be breathed into the anxious bosom of the sceptical invalid. The divine Founder of Christianity came not to destroy, but

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* Taylor's Holy Dying, chap. 4, § 2.

† The Dream, a poem by Mrs. Norton.

to save. If the invalid be truly a Christian, his creed on doctrinal points is of little moment. If he have a sincere belief in the faith in which he has been educated, his mind will enjoy more tranquillity in adhering to it; whereas, what anxiety must be the consequence of any endeavour, however well intended, to shake that faith upon which the dying man has hitherto rested in security!

In a medical point of view, such misapplied zeal is always injurious, and must be suppressed; and it is not less the duty of friends, than it assuredly is that of the medical attendant, to expel such presumptuous meddlers from approaching the sick-bed.

On the other hand, the utmost consolation may be afforded to the sick by pointing out the duty of resignation, and a firm reliance on the merits of our Saviour. Resignation tranquillizes the mind, calms the agitated emotions; and, when there are grounds for anticipating recovery, it aids the influence of the medical means, and forwards, with the blessing of Providence, the work of the physician.

SUPPLEMENT.

I. MILD APERIENT FOR PILES.

Take of Precipitated Sulphur, *fifteen grains;*
Magnesia, *a scruple.*—Mix.

To be taken daily at bed-time, in a glassful of milk or of water.

II. EMETIC FOR UNLOADING THE STOMACH.

Take of Powder of Ipecacuanha, *a scruple;*
Wine of Ipecacuanha, *two fluid drachms;*
Water, *one fluid ounce.*—Mix.

To be taken in the evening.

III. SEDATIVE LOTION IN THE PRURIGINOUS DISEASES OF OLD AGE.

Take of Spirit of Mindererus, *two fluid ounces;*
Diluted Hydrocyanic Acid, *one fluid drachm;*
Tincture of Fox-glove, *three fluid drachms;*
Rose-water, *five fluid ounces.*—Mix.

To be applied to the itching parts, night and morning, by means of a sponge.

IV. SUBSTITUTE FOR SEDLITZ POWDERS.

Take of effloresced Sulphate of Soda, *a drachm;*
Bicarbonate of Soda, *half a drachm.*—Mix,
For the Alkaline Powder.

Take of Crystallized Citric Acid in powder, *fifteen grains*, for the Acid Powder.

Dissolve each of these powders separately; mix the solutions together in a tumbler; and drink the mixture whilst it effervesces.

V. TOOTH-POWDER.

Take of Powder of Krameria, *two drachms;*
Myrrh, in powder, *one drachm;*
Camphor, *four drachms;*
Charcoal, *one ounce;*
Spirit of Wine, *ten minims.*
Rub the whole into a fine powder.

VI. OINTMENT FOR CHOPPED HANDS.

Take of Goulard's Extract, *one fluid drachm;*
Rose-water, *one fluid ounce;*
Spermaceti Ointment, *two ounces.*
Melt the ointment, and rub it up with the Extract of Goulard, mixed with the Rose-water.

VII. LINIMENT FOR PAINFUL JOINTS.

Take of Soap Liniment, *six fluid drachms;*
Tincture of Aconite, *ten fluid drachms.*
Mix.
To be rubbed upon the joints at bed-time,

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